R-2-P
5-83

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Permit No. D [redacted]

Coal Mining & Reclamation Permit**

Issued to: [redacted]

[redacted]

[redacted]

Phone Number (614) [redacted]
AREA CODE

Application No. [redacted]

Acreage [redacted]

Effective [redacted]

Expires [redacted]

Type of Operation: _____ Surface XX Underground _____ Other _____

LOCATION OF PERMIT AREA

Names of Landowners	T-____, R-____	Sec.	Lot	Township	County
The Presidio Corp. & Ohio Coal Company	T-6, R-5	3,4		Bayne	Belmont

**Partial Conditional Permit - This permit is issued on the condition that mining activities may not be begun until a revised reclamation plan is submitted and approved. The revised reclamation plan is to provide the information identified in the attached plan and to be submitted when mining activities are resumed or within each wedding.

This permit is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The approved water monitoring plan for this permit is:

Monitor for quality at: Not required.

Monitor for quantity at: not required.

December 1, 1986
Date

Chief, Division of Reclamation

DNR 6608 Distribution: **White** - Operator **Blue** - Inspector **Green** - Division of Mines **Canary** - OSM **Pink** - Columbus Office **Goldenrod** - EPA

AEC 19157

R-2-P
5-83

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

Permit No. D 0425

Coal Mining & Reclamation Permit

Issued to: [illegible]

Application No. [illegible]

[illegible]

Acreage [illegible]

[illegible]

Effective [illegible]

Phone Number ([illegible]) [illegible]
AREA CODE

Expires 10/21/89

Type of Operation: ____ Surface X Underground ____ Other ____

LOCATION OF PERMIT AREA

Names of Landowners	T-___,R-___	Sec.	Lot	Township	County
[illegible]	[illegible]	[illegible]		[illegible]	[illegible]

This permit is issued in accordance with and subject to the provisions, conditions, and limitations of Chapter 1513 of the Revised Code and Chapters 1501:13-1, 1501:13-3 through 1501:13-14 of the Administrative Code.

The approved water monitoring plan for this permit is:

Monitor for quality at: [illegible]

Monitor for quantity at: [illegible]

October 22, 1984

Date

Chief, Division of Reclamation

AEC 19158

(7) Will operations in either the permit or adjacent areas conducted under this permit affect land within three hundred feet of any occupied dwelling? _____ Yes, X No.

(8) Will operations in either the permit or adjacent areas conducted under this permit affect land within three hundred feet of any public building school, church, community or institutional building, or public park? _____ Yes, X No.

(9) Will operations in either the permit or adjacent areas conducted under this permit affect land within one hundred feet of a cemetery? _____ Yes, X No.

(10) Are there areas within the proposed permit or adjacent areas designated unsuitable for coal mining operations under Rule 1501:13-3-07 of the Administrative Code or under study for designation in an administrative proceeding under this rule? X Yes, _____ No.

Raven Rock, Inc. is understudy as per letter from Mr. Mamone of ODNR, dated May 18, 1983.

E. PERMIT TERM AND RELATED INFORMATION

(1) Anticipated/actual date for:

(a) Starting mining operations 1966
(b) Terminating mining operations unknown at this time(1)

(2) Number of surface acres to be Affected:

(a) First year of operation 45.8 acres
(b) During life of permit 45.8 acres

(3) Horizontal extent over life of permit 1940 acres; vertical extent 300 feet.

(1) Due to the present coal market conditions, mining operations at The Youghiogheny & Ohio Coal Company's Allison Mine will remain inactive. Operations will commence when market conditions improve.

DAPPOLONIA

permit

ODNR
OHIO DEPARTMENT OF
NATURAL RESOURCES
Division of Reclamation
Fountain Square
Columbus, Ohio 43224

September 19, 1984

The Youghiogheny and
Ohio Coal Company
P.O. Box 1000
St. Clairsville, Ohio 43950
Attn: Ronad R. Bevan

Dear Ron,

Listed below are the necessary amounts of bond to cover the 1st year of your applications and for reclaiming of your underground mines...

Underground Mines	Bond required for reclaiming
Nelms Mine Cadiz Portal	$125,000.00
Allison Mine	203,250.00
Nelms #2 Mine ✓	10,625.00

Application #'s	Bond required for 1st year
0278	287,500.00
0277	114,500.00
0276	223,500.00

Enclosed are Letter of Credit forms to be filled out. I also need either a new page 10 of your applications or modification forms with regard to the permit acreage change on your year 1 reclamation and SM-39 forms stating the reaffected acres involved.

Sincerely,

Colleen Jadszen

Colleen Jadszen

/cj

cc: J. Sprouse
Files

OHIO DEPARTMENT OF NATURAL RESOURCES
Division of Reclamation

ORIGINAL

Approval of Surface Coal Mining Permit Application

0277

1. Name of Applicant The Youghiogheny & Ohio Coal Co.

2. Address of Applicant P.O. Box 1000

City St. Clairsville State Ohio Zip 43950

3. Application Number 0277

4. Number of acres to be permitted 45.0

5. Number of acres to be affected first mining year 45.0

6. The surface and ground water monitoring plan for this permit shall be:

No monitoring required.

7. This application is APPROVED since it (demonstrates) (~~does not demonstrate~~) and the Division (has) (~~has not~~) found that the criteria in paragraph (H) of rule 1501: 13-5-01 of the Administrative Code have been met.

Date April 2, 1984 Signed Larry Lawrence

8. An Authorization to Construct Drainage Controls will be issued upon receipt of:

Permit Fee $ 2250.00 Bond $ 112,500.00

AEC 19161

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

UNDERGROUND COAL MINING AND RECLAMATION
PERMIT APPLICATION

Applicant The Youghiogheny & Ohio Coal Company

A. Type of Operation: X Shaft; X Slope; _____ Drift

B. Type of Application: _____ New; X Renewal

C. If Renewal:

(1) Existing permit number S.E.U.M. and affidavit submitted

(2) Expiration date of permit Not applicable

D. Did a person other than an employee of the applicant prepare this application? X Yes, _____ No. If "yes" provide:

Preparer's Name D'Appolonia Consulting Engineers, Inc.

Address 10 Duff Road

City Pittsburgh, State PA Zip 15235

Telephone No. 412 - 243-3200

E. The persons listed below are authorized to revise this permit application during the permit review process.

James A. Bloom, P.E.
Vice President
Engineering and Operation

F. I, the undersigned, a responsible official of the applicant do hereby verify the information in the complete permit application as true and correct to the best of my information and belief.

Printed Name James A. Bloom, P.E. ; Date 3-23-84

Signature James A. Bloom, P.E. Title Vice President, Engineering and Operations

0277

D'APPOLONIA

G. For Revision Review Only. This item is to be completed after revisions, if any, have been made to the permit application.

I, the undersigned official of the applicant hereby acknowledge the revisions made by the persons identified in Item E. above during the permit review process.

Printed Name James A. Bloom ; Date 3-23-84

Signature James A. Bloom ; Title Vice Pres, Engrg & Opers.

0277

DAPPOLONIA

PART 1

LEGAL, FINANCIAL, COMPLIANCE,
AND RELATED INFORMATION

A. IDENTIFICATION OF INTERESTS

(1) Applicant's Name The Youghiogheny & Ohio Coal Company

Address P. O. Box 1000

City St. Clairsville, State OH Zip 43950

Telephone No. 614 - 695-4117

Tax I.D. No. _____ / or Social Security No. _____

(2) Is the operator of the mine to be a person different from the applicant? _____ Yes, X No. If "yes", provide the following:

Operator's Name _____

Address _____

City _____, State _____ Zip _____

Telephone No. ____ - _____ - _____

(3) Indicate the business structure of the applicant:

_____ Single Proprietorship, _____ Partnership,

X Corporation, _____ Association.

_____ Other - specify _____

(4) If the applicant is a business entity other than a single proprietorship, provide the following for the applicant's statutory agent for service of process:

Agent's Name C. T. Corporation

Address Union Commerce Building

City Cleveland, State OH Zip 44100

Telephone No. 216 - 621-4270

0277

DAPPOLONIA

(5) If the applicant is a business entity other than a single proprietorship, provide the following for each officer, partner, director, or person performing a function similar to a director:

Name	George J. Kurk	Position	Chairman of the Board & Director
Address	P.O. Box 4251	City & State	Houston, TX 77210
Name	J. F. Schomaker	Position	President & CEO & Director
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950
Name	W. P. Anderson	Position	Director
Address	P.O. Box 1642	City & State	Houston, TX 77001
Name	Robert J. Allison, Jr.	Position	Director
Address	P.O. Box 1330	City & State	Houston, TX 77001
Name	Robert D. Runsucker	Position	Director
Address	P.O. Box 1642	City & State	Houston, TX 77001
Name	Richard L. O'Shields	Position	Director
Address	P.O. Box 1642	City & State	Houston, TX 77001
Name	Cyril J. Smith	Position	Secretary
Address	P.O. Box 1642	City & State	Houston, TX 77001
Name	James A. Bloom	Position	Vice President - Eng. & Oper.
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950
Name	Robert E. Daigneault	Position	Vice President - Marketing
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950
Name	J. Dean Murphy	Position	Treasurer & Ass't. Secretary
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950
Name	Robert C. Kota	Position	Assistant Secretary
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950
Name	John C. Logar	Position	Controller & Ass't. Secretary
Address	P.O. Box 1000	City & State	St. Clairsville, OH 43950

0277

DAPPOLONIA

(6) If the applicant is a business entity other than a sole proprietorship, does any person own of record ten percent or more of any class of voting stock of the applicant? ____ Yes, __X__ No.

(7) If the applicant is a business entity other than a sole proprietorship, has the applicant, any partner, or principal shareholder previously operated a coal mining operation in the United States within the five year period preceding the date of this application under a name other than that in which this application is filed? ____ Yes, __X__ No.

(8) Provide the following information for every legal or equitable owner of record, surface and mineral, of the property to be mined or affected by surface operations and facilities, indicating whether the ownership is of surface, coal, or non coal mineral.

Name The Youghiogheny & Ohio Coal Company
Address P. O. Box 1000
City St. Clairsville State OH Zip 43950
Surface X, Coal X, Non Coal Oil and Gas

Name Ralph E. Kemp and Ethel E. Kemp
Address Route #3
City Warsaw State OH Zip 43844
Surface ____, Coal X, Non Coal ____

Note: Coal owner may not appear on the Application Map Drawing No. 82-1862-M in Appendix A because the underground coal reserves extend beyond the permit limits.

(9) Provide the following information for the holders of record of any leasehold interest in the property to be mined or affected by surface operations or facilities, indicating whether the held interest is of surface, coal, or non coal rights:

Name The Youghiogheny & Ohio Coal Company
Address P. O. Box 1000
City St. Clairsville State OH Zip 43950
Surface ____, Coal X, Non Coal ____

Note: Coal property owned by those listed as coal owner in Item 8.

(10) Are there purchasers of record under a real estate contract of the property to be mined or affected by surface operations and facilities? ____ Yes, __X__ No.

(11) Is the operator identified in item A(2) or any owner, holder, or purchaser listed in items A(8), (9), or (10) respectively, a business entity other than a single proprietorship? X Yes, _____ No. If "yes", submit Attachment 3.

(12) Is any part of the proposed permit area adjacent to any lands which are not owned by those persons identified in Item A(8)? _____ Yes, __X__ No.

(13) Is the listing of permits in Item 7. of the most recently approved Coal Mining Operation License Application current? _____ Yes, _____ No.

Not Applicable

(14) Is the listing of pending permit applications in Item 9. of the most recently approved Coal Mining Operation License Application current? _____ Yes, _____ No.

Not Applicable

(15) Name of mine Allison Mine

(16) MSHA identification number 33-61070

(17) Does the applicant hold lands, interests in lands, options, or pending bids on interests for lands which are contiguous to the proposed permit area? __X__ Yes, _____ No. If "yes", submit, as an addendum to the permit application, a description of the lands.

The Y&O Coal Company owns all surface lands surrounding the permit area. Refer to Drawing No. 82-1862-E2 for the extent of the permit limits and lands contiguous to the permit area. The lands contiguous to the permit area are typically steep sloping, undisturbed forest lands. Various residential dwellings are located outside the permit limits on the mildly sloping areas at valley bottoms or on the crests of hilltops along state, county or town roads.

(18) Is it anticipated that individual mining permits will be sought for any of those lands described in item 17. above? _____ Yes, __X__ No.

It is not anticipated that additional permit area will be required during the term of this permit. However, if additional area is required, incidental boundary revisions will be submitted for these additional lands.

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DAPPOLONIA

8. COMPLIANCE INFORMATION

(1) Are the responses concerning suspensions and revocations of permits and forfeiture of bond in Item 12. of the most recently approved Coal Mining License Application current? _____ Yes, _____ No.

Not Applicable

(2) Is the listing of notices of violations in item 14. of the most recently approved Coal Mining License Application current? _____ Yes, _____ No. If "no", submit Attachment 7.

Not applicable - see Attachment 7.

C. RIGHT OF ENTRY INFORMATION

(1) Provide either of the following to allow for coal mining operations on the permit area:

(a) A copy of the documents, or

(b) An affidavit wherein the documents are described. The affidavit is to be submitted as an addendum to the permit application and is to be in the following format: (Note - a separate affidavit is not required for each document).

AFFIDAVIT

State of Ohio, Belmont County, ss. Jack O Dunlevy being first duly sworn, says that the following described documents convey to the applicant the legal right explained below and are a subject of litigation as shown below:

1. Type of document Warranty Deed
Execution Date 11/19/66
Expiration Date
Parties: From Starling A. White To The Y&O Coal Company
Description of land: No. Acres 32.20
County Belmont, Township Wayne
Sections 3-4, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

2. Type of document Warranty Deed
Execution Date 10/7/67
Expiration Date
Parties: From Starling A. White To The Y&O Coal Company
Description of land: No. Acres 188.30
County Belmont, Township Wayne
Sections 3-4, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

3. Type of document Warranty Deed
Execution Date 10/7/66
Expiration Date
Parties: From William D. Reed To The Y&O Coal Company
Description of land: No. Acres 68.00
County Belmont, Township Wayne
Sections 3, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

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4. Type of document Warranty Deed
Execution Date 10/4/67
Expiration Date
Parties: From William D. Reed To The Y&O Coal Company
Description of land: No. Acres 134.29
County Belmont, Township Wayne
Sections 2-3, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

5. Type of document Warranty Deed
Execution Date 3/29/68
Expiration Date
Parties: From James W. Williams To The Y&O Coal Company
Description of land: No. Acres 149.45
County Belmont, Township Wayne
Sections 4, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

6. Type of document Warranty Deed
Execution Date 8/4/66
Expiration Date
Parties: From Frank Kain To The Y&O Coal Company
Description of land: No. Acres 51.00
County Belmont, Township Wayne
Sections 3, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

7. Type of document Warranty Deed
Execution Date 1/17/67
Expiration Date
Parties: From Clarence V. Perkins To The Y&O Coal Company
Description of land: No. Acres 47.65
County Belmont, Township Wayne
Sections 4, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

8. Type of document Warranty Deed
Execution Date 9/8/66
Expiration Date
Parties: From Cecil W. Saffell To The Y&O Coal Company
Description of land: No. Acres 32.00
County Belmont, Township Wayne
Sections 3, T6, R5
Explanation of legal rights claimed All rights except easements of record.
Pending litigation ____ Yes, X No.

Jack D. Graham 3/23/84
Signature of Affiant Date
Jack D. Graham

Manager of Leased and Owned Properties
Position

Sworn to before me and subscribed in my presence this 23rd day of March, 1984.

Judy A. Greenlee
Notary Public
JUDY A. GREENLEE, Notary Public
State of Ohio
My Commission Expires Sept. 20, 1987

(2) List below the following information for each surface owner of land within the proposed permit and adjacent area.

OWNER NAME	COUNTY	TOWNSHIP	SECTION	LOT	T-	R-
The Youghiogheny & Ohio Coal Company	Belmont	Wayne	3	-	6N	5W
		Wayne	4	-	6N	5W
Betty Garrison Kerner	Belmont	Wayne	3	-	6N	5W
Verna Crooks	Belmont	Wayne	3	-	6N	5W
Clarence Perkins	Belmont	Wayne	4	-	6N	5W
Don White	Belmont	Wayne	3	-	6N	5W
Raven Rock, Inc.	Belmont	Wayne	3	-	6N	5W

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D. AREAS UNSUITABLE FOR COAL MINING OPERATIONS

(1) Does the permit or adjacent area included in this permit application include any area dedicated as a nature preserve pursuant to Chapter 1517., Ohio Revised Code? _____ Yes, __X__ No.

(2) Does the permit or adjacent area included in this permit application include any area within one thousand feet of any wild, scenic, or recreational river dedicated pursuant to Chapter 1501., Ohio Revised Code? _____ Yes, __X__ No.

(3) Does the permit or adjacent area included in this permit application include any area within the boundaries of the following systems: National park, national wildlife refuge, national trails, national wilderness preservation, national recreational areas, and wild and scenic rivers, including those rivers under study? _____ Yes, __X__ No.

(4) Does the permit or adjacent area included in this permit application include any lands within the boundaries of any national forest? _____ Yes, __X__ No.

(5) Will operations in either the permit or adjacent areas conducted under this permit adversely affect any publicly owned park or places included in the national register of historic sites? _____ Yes, __X__ No.

The attached letter submitted by the Belmont County Community Improvement Corporation confirms that no lands within the permit boundary or adjacent areas have been designated as archaeological or historical sites.

COMMUNITY IMPROVEMENT CORPORATION
of Belmont County

UNIT 485
OHIO VALLEY MALL
ST. CLAIRSVILLE,
Ohio 43950

Phone 695-9678
Area Code 614

September 19, 1983

Miss Colleen M. McCormack
10 Duff Road
Pittsburgh, Pa. 15235

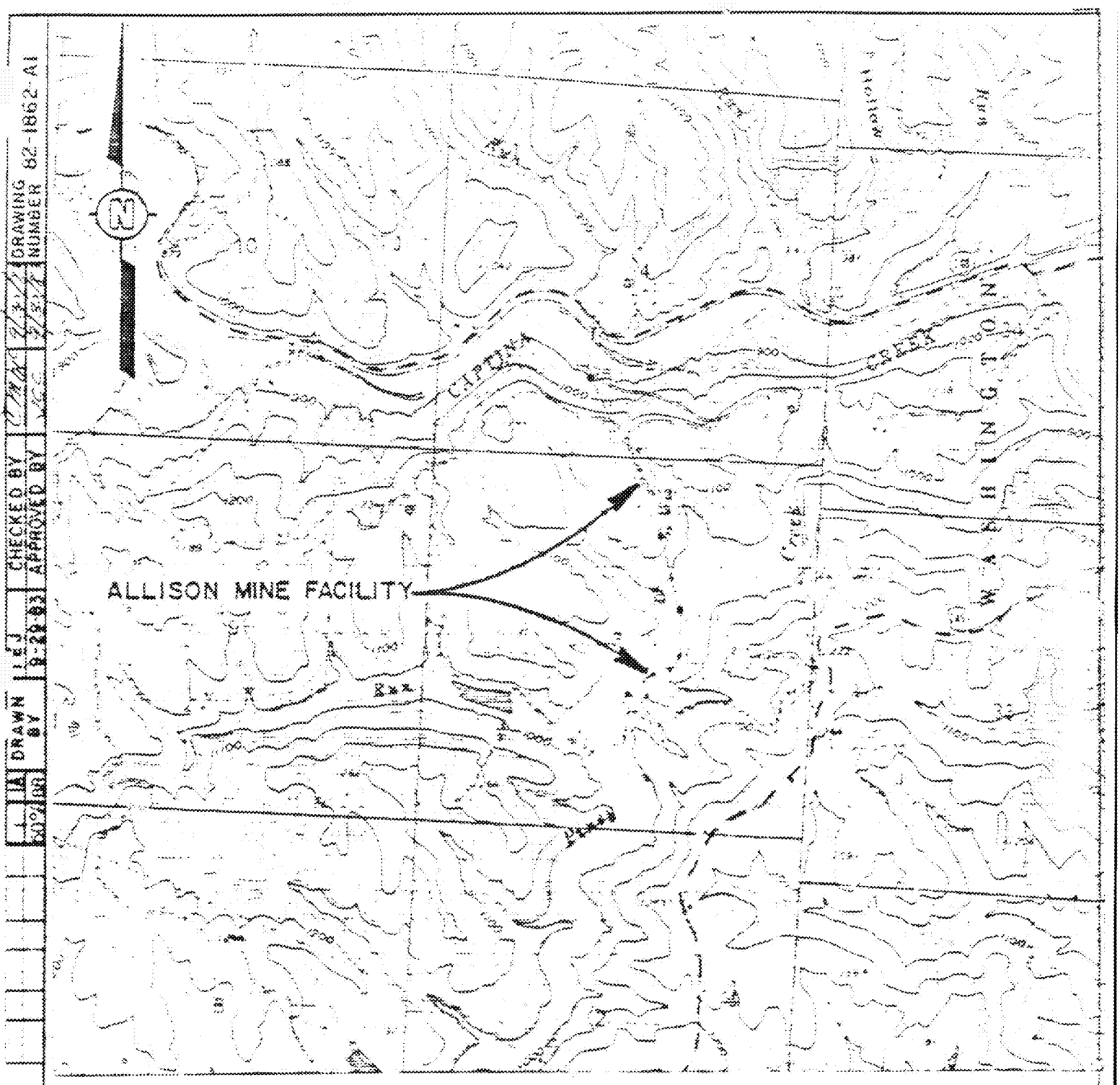
Dear Miss McCormack:

I have reviewed the information available regarding the Allison Mine Site and find there is no Historical or Archaeological sites near this mine site.

Yours truly,

James A. Dixon, Ex. Director

0277



SCALE

0 2000 4000 FEET

VALID EXISTING RIGHTS

ALLISON MINE
BELLAIRE, BELMONT COUNTY, OHIO

PREPARED FOR

YOUGHIOGHENY AND OHIO COAL COMPANY
ST. CLAIRSVILLE, OHIO

REFERENCE:

U.S.G.S. 7.5 MIN. SERIES TOPOGRAPHIC
HUNTER, OHIO QUADRANGLE
PHOTOREVISED 1975 SCALE: 1" = 2000'

D'APPOLONIA

(6) Will operations in either the permit or adjacent areas conducted under this permit affect land within one hundred feet of the outside right-of-way of a public highway? __X__ Yes, _____ No. If "yes", list the highways in the space below and submit Attachment 9 or proof of valid existing right.

Surface facilities for the underground mining of coal at Y&O Coal Company's Allison Mine are within 100 feet of the outside right-of-way of public highways. Wayne Township Road 88 provides access to the mine office and associated buildings (mining) from State Route 145 (east of the site). Wayne Township Road 81 also provides access to the mine office and associated buildings (mining) from Wayne Township Road 87 (south of the site). Wayne Township Road 87 also provides access from the mine office (via Wayne Township Road 81) to the freshwater pond (west of the site). Wayne Township Road 87 continues north from the freshwater pond and intersects Wayne Township Road 74 which provides access to the coal preparation plant from the north. State Route 148 runs through the northern portion of the site.

Y&O Coal Company claims a valid existing right based on deeds for these areas executed in 1966 and 1967 and the start of operations in 1967. In addition, a copy of the USGS topographic map for the Hunter, Ohio quadrangle dated 1975 (photorevisesd) is enclosed to indicate the presence of mine-related facilities.

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(7) Will operations in either the permit or adjacent areas conducted under this permit affect land within three hundred feet of any occupied dwelling? _____ Yes, __X__ No.

(8) Will operations in either the permit or adjacent areas conducted under this permit affect land within three hundred feet of any public building school, church, community or institutional building, or public park? _____ Yes, __X__ No.

(9) Will operations in either the permit or adjacent areas conducted under this permit affect land within one hundred feet of a cemetery? _____ Yes, __X__ No.

(10) Are there areas within the proposed permit or adjacent areas designated unsuitable for coal mining operations under Rule 1501:13-3-07 of the Administrative Code or under study for designation in an administrative proceeding under this rule? __X__ Yes, _____ No.

Raven Rock, Inc. is understudy as per letter from Mr. Mamone of ODNR, dated May 18, 1983.

E. PERMIT TERM AND RELATED INFORMATION

(1) Anticipated/actual date for:

(a) Starting mining operations 1966
(b) Terminating mining operations unknown at this time(1)

(2) Number of surface acres to be Affected:

(a) First year of operation 45 acres
(b) During life of permit 45 acres

(3) Horizontal extent over life of permit 1940 acres; vertical extent 300 feet.

(1) Due to the present coal market conditions, mining operations at The Youghiogheny & Ohio Coal Company's Allison Mine will remain inactive. Operations will commence when market conditions improve.

0277

DAPPOLONIA

PROOF OF PUBLICATION

The State of Ohio
County of Belmont, ss:

The undersigned, being sworn, says that he or she is an employee of *The Times Leader, Inc.*, A Corporation, publisher of the *Times Leader* a newspaper printed and published in Martins Ferry, Belmont County, Ohio, each day of the week except Saturday and of general circulation in said city and county; that it is a newspaper meeting the requirements of sections 7.13 and 5721.01 Ohio Revised Code as amended effective September 14, 1957; that affiant has custody of the records and files of said newspaper; and that the advertisement of which the annexed is a true copy, was published in said newspaper on each of the days in the month and year stated, as follows:

February 5, 12, 19
26 1984

Subscribed by Affiant and sworn to before me, this 27th day of February, A.D. 1984

Notary Public
In and For Belmont County, Ohio
My Commission Expires

Printer's Fees $ 80.00

Notary's Fees $

THE TIMES LEADER
Martins Ferry, Ohio
Bellaire, Ohio

PUBLIC NOTICE

RECEIVED
FEB 29 1984
DIVISION OF
RECLAMATION

(4) In the space below, provide the name and address of the public office where a complete copy of this permit application is to be filed. Note: The Coal Mining Operation License Application is also required to be filed with the permit application at the public office:

Ohio Department of Natural Resources
Division of Reclamation
68590 Bannock Road
St. Clairsville, OH 43950

Note: Coal Mining Operation License Application not required.

(5) In the space below, list the name and address of the newspaper and provide the text of the advertisement that is to be published in a newspaper of general circulation in the locality of the proposed permit area. Note: The advertisement is to provide the information required by 1513.17(B)(2)(f) of the Coal Mining Law.

Newspaper: The Times Leader
200 South Fourth Street
Martins Ferry, OH 43935

The Youghiogheny and Ohio Coal Company
P.O. Box 1000
St. Clairsville, OH 43950

Pursuant to Section 1501:13-5-01 of the Ohio Administrative Code, notice is hereby given that The Youghiogheny and Ohio Coal Company, P.O. Box 1000, St. Clairsville, Ohio, 43950, has submitted a coal mining and reclamation permit application, numbered 0277, to the Ohio Department of Natural Resources, Division of Reclamation. The proposed coal mining and reclamation operations will be at the Allison Mine, located in Belmont County, Wayne Township, Sections 3 and 4, on the property of The Y & O Coal Company.

The proposed permit area encompasses 45 acres and is located on the Hunter, Ohio 7-1/2 minute U.S.G.S. quadrangle map, approximately 3.2 miles north of Beallsville.

(Note: This application is required by Section 1513.07 of the Ohio Revised Code and will not change the present inactive status of the underground operations.)

The application is on file at the Ohio Department of Natural Resources, Division of Reclamation District Office located at 68590 Bannock Road, St. Clairsville, Ohio, 43950 for public viewing. Written comments or requests for informal conference may be sent to the Division of Reclamation, Fountain Square, Building 8-3, Columbus, Ohio 43224, within thirty days of the last date of publication of this notice.

This notice shall be printed once a week for four consecutive weeks, commencing on _____.

(6) Provide the following information for each license or permit needed by the applicant, other than those required by Chapter 1513. of the Ohio Revised Code, to conduct the proposed coal mining activities.

TYPE OF PERMIT OR LICENSE	NAME AND ADDRESS OF ISSUING AGENCY	APPLICATION/ PERMIT LIC.#	DATE APPROVED	DATE DISAPP'D.
NPDES	State of Ohio Environmental Protection Agency 361 East Broad Steet Columbus, Ohio 43216 (614) 466-8565	L091*8D	8/29/79	
Division of Mines	State of Ohio 220 Parsons West 5th Ave. Columbus, Ohio 43215 (614) 466-4240	BT67	1966	
MSHA	Mine Safety and Health Administration 50985 National Road St. Clairsville, Ohio 43950 (614) 695-2297	33-01070	1966	

(7) Applicant's Coal Mining and Reclamation License No. _____.

Not Applicable.

PART 2

ENVIRONMENTAL RESOURCES INFORMATION

A. CULTURAL, HISTORIC, AND ARCHEOLOGICAL INFORMATION

(1) Are there any cultural or historic resources listed on the National Register of Historic Places within the proposed permit and adjacent areas? ____ Yes, __X__ No.

(2) Are there any known archeological features within the proposed permit and adjacent areas? ____ Yes, __X__ No.

A letter from the Community Improvement Corporation of Belmont County is presented in the response to Item D(5), Part 1, Page 10.

B. GEOLOGY DESCRIPTION

(1) For underground mining operations, describe the geology down to and including the first aquifer to be affected below the lowest coal seam to be mined. In addition submit Attachment 13 as required by paragraph (C)(1) of Rule 1501:13-4-13 of the Administrative Code.

NOTE: Provide at least three (3) Attachment 13's or one (1) per one hundred and sixty (160) acres, whichever is greatest. At least one test hole or data from a shaft or highwall must be located within the affected area to complete section one of Attachment 13.

Section 2 of Attachment 13 must be completed for at least three (3) holes, (one of which may be the same as that used for section 1) or one (1) per one hundred and sixty (160) acres, whichever is greatest.

See attached.

Y&O Coal Company's Allison Mine is in the Pittsburgh (No. 8) coal seam. The bottom of the seam marks the bottom of the Monongahela Group, part of the Pennsylvanian System. The Pennsylvanian rocks consist of sandstone, shale, limestone, and bituminous coal.

The depth of the Pittsburgh seam in the vicinity of the subject permit area ranges between 150 and 500 feet. The seam dips about one degree toward the southeast which approximates the regional structural dip, but due to the rugged surface terrain, the depth of cover varies.

The Allison Mine is located in the unglaciated portion of the Allegheny Plateau physiographic region or the Appalachian Plateau geologic province. The mine is located near the western extent of the plateau which extends eastward about 200 miles at this latitude. The surface of the unglaciated Allegheny Plateau rises slightly to the east from an altitude of about 1,200 feet in Ohio to an altitude of 1,400 feet in southwestern Pennsylvania. Surface elevations in the area of the Allison

Mine range from about 900 to 1,200 feet. The surface topography of the unglaciated plateau consists of smooth, rolling hills with the steeper portion of the slopes occurring at the lower portion of the slope.

The rocks exposed in the area of the Allison Mine are part of the Monongahela Group. As indicated, the Pittsburgh seam marks the bottom of the Monongahela Group. The Monongahela Group overlies the Conemaugh Group which extends to the top of the Upper Freeport seam, a distance of about 600 feet.

Except for the steep slopes, a thin veneer of clayey shale-derived soils generally occurs at the surface in this area. A geologic profile below the surficial materials generally consists of alternating layers of shale, clay, limestone, and coal to the Pittsburgh seam and is mostly shale, with minor sandstones and limestones and coal to the Lower Kittanning seam (No. 5). A typical lithologic section from the area of the surface facilities is presented on Drawing No. 82-1862-E4.

The Pittsburgh coal seam section (top to bottom) consists of approximately one foot of coal (roof coal), a one-foot shale parting (draw rock), and five feet of coal. The immediate roof rock above the roof coal generally consists of two feet of shale and the floor rock is a clayey shale. Chemical analyses were performed on samples of the roof shale, roof coal, draw shale, total main seam, and bottom shale. Tests were performed to determine pyritic sulfur, pyrite marcasite, total sulfur, neutralization potential, and clay content of the floor shale. The results of these analyses are presented on Attachment 13 and in Table D.1. All of the samples have total sulfur contents between 3.9 and 7.2 percent. The floor material has a neutralization potential (i.e., potential alkalinity) of 24.0 percent; however, the sulfur content will result in a negative acid-base potential and acid production. Since the shaft is temporarily sealed and inactive at this time, additional analyses are not available.

also see core log reports in supporting doc.

C. GROUND WATER INFORMATION

(1) Describe the ground water hydrology for the proposed permit and adjacent areas and underground workings. The description is to include the information required by paragraph (D)(1) of Rule 1501:13-4-04 of the Administrative Code.

Based on the Allison Mine exploration boreholes and an inventory of the wells in the vicinity, one major aquifer occurs above the Pittsburgh coal seam (Conemaugh Group) in the area. This aquifer is a sandstone aquifer occurring in the hills and ridges between Elevations 1000 and 1060, generally at depths of 50 to 150 feet. The springs in the area originate from this aquifer.

The results of a well inventory indicate water levels ranging from about Elevation 1100 to 1150 for wells put down from elevations about 1130 feet. This is somewhat higher than the top of the aquifer (approximate Elevation 1060), indicating that this aquifer may be artesian or under pressures greater than atmospheric.

This aquifer has regional areal extent, however, yields only range from two to five gallons per minute. Most of the domestic wells in the area draw collected water from this aquifer. Wells put down from lower elevations probably extend openhole through several minor sandstone aquifers and generally yield only two to three gallons per minute.

The first possible aquifer below the Pittsburgh seam is a 20-foot-thick sandstone layer occurring 150 feet below the seam at about Elevation 550 feet.

A water well inventory was conducted in the vicinity of the Allison Mine surface facilities. The results of the inventory are included in Attachment 14. Ground water static water levels were available for three wells and the depths vary from 13 to 125 feet below the ground surface. The wells are the sources of domestic and industrial water use. Four of the wells have been monitored quarterly by Y&O Coal Company for quality and quantity since January 1981.

Results of the recent ground water inventory indicate a slightly acidic water to neutral water outside the hydrologic boundary compared to basic water near the mine site with all water samples having a net alkalinity. Iron content was less than 1.5 mg/l at all wells.

Eight ground water monitoring points (wells and springs) have been established by Y&O Coal Company at the Allison Mine and were analyzed quarterly between January and December 1981. The data of this analysis are attached for background data.

For actual well data, see Tables C.1 through C.4. (in supporting)

An undeveloped spring, S-1, adjacent the clean coal silos, has been determined to be slightly basic pH having a net alkalinity. Total acidity, total iron, total manganese, and total suspended solids are

within acceptable effluent limitations. For actual spring quality and quantity data, see Attachment 14 and Tables C.5 through C.8. (in supporting)

Two springs are monitored upstream of the reclaimed refuse disposal area. Spring S-2 is in the right fork of the hollow, while spring S-3 is located in the left fork. The water quality characteristics are very similar and appear to be of the same aquifer. The pH was 6.95, typically basic having a net alkalinity. Total iron and total manganese are normally within acceptable limitations. Suspended solid content is within acceptable limits and the water hardness is within limits making it acceptable for most domestic or industrial purposes.

The natural spring, S-4, north of the reclaimed freshwater pond, is acidic with pH of approximately 4.0, due to its exposure to the Pittsburgh 11 and 12 coal outcrop. The water quality has a net acidity with total iron approximately 7.2 and total manganese approximately 11. For detailed spring water quality and quantity data, see Tables C.5 through C.8.

Ground water is being collected in a sump at the bottom of the mine slope entry and pumped to mine water Pond 002. A portion of the collected mine water was stored in water storage tanks and was used in the washhouse facility. Currently, no mine water is used as the mine is inactive. The ground water had been tested and determined to be acceptable for use in the mine office and washhouse facility after some chlorination treatment. Water had also been collected in the shaft entry water ring and pumped to the surface drainage system in the storage yard area and then discharged into the natural watercourse. This water has also been determined acceptable for direct discharge into the stream channels.

Acid ground water seepage emanates from a reclaimed refuse area constructed prior to the current coal mining and reclamation regulations. The seep is located adjacent the raw coal conveyor and crusher house facility and discharges into Piney Creek. At the latest monitoring series, a seepage flow did not exist.

(2) Provide a list of all wells on the proposed permit and adjacent areas.

Wells W-1 through W-13 are shown on Drawing 82-1862-82 in Appendix A.

(3) Provide a list of all springs on the proposed permit and adjacent areas.

Springs S-1 through S-4 are shown on Drawing 82-1862-82 in Appendix A.

(4) Are there any public water supply sources on the permit and adjacent areas? _____ Yes, X No.

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(5) Submit Attachment 14 for representative wells and springs as per 1501:13-4-13(D)(2)(b), (D)(2)(d) and (D)(4).

D. SURFACE WATER INFORMATION

(1) List below the name of the watershed that will receive water discharges from the proposed permit area as listed in the "Gazetteer of Ohio Streams", published by the Ohio Department of Natural Resources.

Piney Creek, Captina Creek, Long Run

(2) List below the location of all surface water bodies such as non-emphemeral streams, lakes and ponds within the proposed permit and adjacent areas.

All surface water bodies are shown on Drawings Nos. 82-1862-E2 and E3 in Appendix A.

(3) Submit Attachment 14 for each non-ephemeral stream at the point (downstream) or points (up and downstream) that the stream crosses the permit or adjacent area perimeter.

(Also see supporting)

(4) Based on the quality and quantity measurements listed on Attachment 14 and from other information available to the applicant and submitted with this application, identify the seasonal variations in water quality and quantity for the streams on the proposed permit and adjacent area.

The Y&O Coal Company's Allison Mine surface facilities lie within three watersheds. Within the Piney Creek watershed are the mine offices, storage area, crusher facilities, preparation plant, and abandoned refuse disposal areas, which lie on the east and west shores adjacent Piney Creek. The clean coal silo and train loadout area are located within the Captina Creek watershed, and the reclaimed freshwater pond which discharges into Piney Creek is within the Long Run watershed. Surface water from Long Run was used in the processing of coal and related operations at the Allison Mine. Piney Creek, Captina Creek, Long Run, and all surface water bodies are shown on Drawings Nos. 82-1862-E2 and E3 in Appendix A.

Undisturbed surface area runoff associated with the recently reclaimed refuse disposal area are collected in diversion ditches capable of safely routing the peak flow from the 100-year, 24-hour storm through the Pond 008 system. All other diversion structures in the remainder of the permitted area have been sized to convey the 10-year, 24-hour storm. The ditches will be constructed to collect and divert surface runoff from areas upslope of the affected area around the facility. Surface runoff from disturbed areas will be collected in ditches and routed to sedimentation ponds.

In accordance with current regulations, three sedimentation ponds are located within the permit area. Sedimentation Pond 002 provides a detention basin for regulated mine water pumpage. The discharge point is located at the confluence of Long Run and Piney Creek. Sedimentation Pond 011 is located in the office, mine shaft, and supply areas and discharges directly into Piney Creek through an 18-inch-diameter ACCMP decant pipe with a vertical riser. A series of three ponds within the Pond 008 system (Ponds 008A, 008B, and 008C) have a common monitored discharge point from Pond 008C which discharges into Piney Creek. A riprap emergency spillway has been constructed in Sedimentation Pond 008A that has the capacity to pass the peak flow from the 100-year storm. Overflow pipes and riprap spillways connect the ponds. Only Pond 002 is sized to store the total runoff from the 10-year, 24-hour design storm plus sediment storage equal to 0.1 acre-foot per acre of disturbed area. All other ponds have been granted storage variances by OEPA and ODNR due to the fact that the facilities are preexisting and that available area has been optimized with respect to pond requirements and mining operation requirements.

The surface water quality and quantity evaluation is based on a monitoring program conducted by D'Appolonia in September 1983 and by Y&O Coal Company between January and December 1981. Based on the test results, mining and related operations at the Allison Mine have had no significant effect on the quality of water in Piney Creek. Due to the inactive status of mining-related facilities, the impact of mining and associated activities should continue to remain insignificant. In comparing the quality of water upstream and downstream of the affected

area, pH is typically slightly basic and generally varies little from the upstream reading. Water quality data collected and used in this comparison are presented in Attachment 14 and Tables D.1 through D.5.

The water of Captina Creek has no significant variation in the upstream and downstream quality parameters based on collected water samples. See Attachment 14 and Tables D.4 and D.5 for a detailed presentation of the water quality data.

Monitored discharges from Sedimentation Pond 008 generally fall within the NPDES effluent limitations. Sodium hydroxide has been used to chemically treat the incoming water so that the effluent would be of acceptable quality. However, upon recent reclamation of the refuse area, the water quality in Pond 008 does not require chemical treatment. A detailed presentation of water data is presented in Table D.2. Monitoring will continue and adjustments of caustic made as needed.

E. HYDROLOGIC DETERMINATION

Based on the information submitted in response to items B, C, and D in this part of the permit application, describe the probable hydrologic consequences of this proposed mining and reclamation operation, both on and off the mine site, on the hydrologic regime. This statement should be predictive in nature and take into account the pre-mining conditions and the mining method. Statements must be substantiated using any available empirical data and/or literature citations.

Based on the information presented in Items B, C, and D of Part 2 of this permit application for the subject facility, the probable hydrologic consequences of the mining and reclamation operation should be minimal.

Domestic wells located within the limits of the mined workings had no evidence of poor quality or reduction of water as a result of past mining. Since no additional surface disturbance or change in mining techniques is planned that could affect the ground water, the Allison Mine should have little impact on the quality and quantity of the ground water. The reclaimed refuse areas which have been developed to service the Allison Mine will have an impact on the recharge of the ground water within the localized area, but since the area in question is relatively small compared to the potential recharge area for the ground water, the impact should be insignificant. Upon reclamation of the surface facilities, infiltration or runoff may vary as a result of the backfill or cover used to final grade the facility.

Surface water quality has not been significantly affected by prior mining activities and the surface runoff will either be diverted into Long Run, Piney Creek, or Captina Creek, or collected in sedimentation ponds, then discharged into the receiving waterways.

Based on data available during the operation of the facility, the surface water quality has been within acceptable effluent limits and should maintain its quality as proper surface drainage and sedimentation control plans have been provided and affected areas have been reclaimed. Suspended solids may increase occasionally until final vegetation at final reclamation has been completed.

Perennial or intermittent streams which had a flow during the sampling series in September 1983 were sampled and analyzed within 1,000 feet of the permit area in accordance with the regulations. These sampling locations are SW-3, SW-6, SW-7, and SW-8. Detailed water quality information is presented in Attachment 14 in the response to Item D(3). The resulting concentrations are within the acceptable effluent limits with the exception of suspended solids. The elevated concentration is the result of sampling procedures.

The seepage at Sample Location S-4 will continue to be of poor quality due to the presence of the coal seams outcropping in the general vicinity, but has minimal impact on the quality of Long Run.

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The seep from the reclaimed Pre-act refuse area south of Pine Creek was dry during the latest sampling series. The site has been reclaimed with surface drainage control provided to minimize infiltration through the refuse material. It is possible that the seepage may continue and may be of poor quality. However, the quantity is small that it will have little effect on Piney Creek.

F. ALTERNATIVE WATER SUPPLY INFORMATION

(1) Based on the response in Item E., identify the extent to which the proposed coal mining activities may proximately result in contamination, diminution, or interruption of an underground or surface source of water within the proposed permit or adjacent areas that is used for domestic, agricultural, industrial, or other legitimate use.

Contamination or diminution of surface or ground water quality is not anticipated. With continued operation and maintenance of the surface drainage and sedimentation control plan, the surface water quality should not be affected. As of this time, there is no plan for significant surface disturbance or change in mining operations that would affect the existing water table; thus, contamination, diminution, or interruption of the ground water is not anticipated.

(2) If contamination, diminution, or interruption may result, identify the alternative sources of water supply that could be developed to replace the existing sources.

Contamination, diminution, or interruption of the present surface and ground water in the permit and adjacent area is not anticipated. However, if circumstances develop that result in a quantity or quality change, an alternate domestic water source could be piped from a public source or tapped from the underlying aquifer depending on the quantity and quality required. Surface water sources could also be developed by construction of ponds, reservoirs, or the damming of streams.

G. CLIMATOLOGICAL INFORMATION

If requested by the Chief, subsequent to the filing of the permit application, submit as an addendum to the permit application, the climatological information required by paragraph (G) of Rule 1501:13-4-13 of the Administrative Code.

The continental climate within Belmont County has wide annual and daily temperature ranges. Winter is described as cold, snowy, and cloudy with an average temperature of 28°F and an average daily minimum of 18°F. Summers are fairly warm and humid with an average temperature of 68°F and an average daily maximum of 81°F.

Precipitation is fairly evenly distributed throughout the year, but slightly higher during the warm summer months when thunderstorms are more frequent. Annual precipitation is between 38 to 42 inches occurring on approximately 120 days of measureable precipitation with the majority of the precipitation

falling between April and September. Thunderstorms occur on about 40 days each year and normally in the summer. The average seasonal snowfall is 32 inches.

The average wind speed is 9 mph. Wind direction varies considerably, but is generally in a south-southwesterly direction. Information data were supplied by the U.S. Climatic center in North Carolina for Wheeling, West Virginia.

The surface drainage plan provided within and adjacent to the permit area has been designed to convey the peak flow from a 100-year, 24-hour storm through or around the permit area. Appropriate linings have been provided to minimize erosion. Sedimentation ponds have been provided with emergency spillways to pass the 100-year storm peak flow for Pond 008 and the 10-year storm for Pond 011. Pond 002 has no significant watershed such that the resulting flow cannot be discharged through the overflow pipe. Hydraulic characteristics are presented on Drawing 81-536-E10 in Appendix 8.

H. LAND USE INFORMATION

(1) Describe the uses of the land existing at the time of the filing of this permit application.

Y&O Coal Company's surface facilities for the Allison Mine are located on the east and west banks adjacent Piney Creek and on the south bank adjacent Captina Creek. All affected land is used in the mining, processing, storage, loading, and transportation of coal, and the associated handling of coal waste material. Adjacent land consists of active or abandoned farmlands and woodlands and reclaimed coal refuse disposal embankments.

(2) Was the land use described in item H (1) above changed within five years before the anticipated date of beginning this proposed mining operation? X Yes, _____ No. If "yes", describe the historic use of the land.

The premining land use is described as undeveloped land. It was previously unmanaged and through natural succession was woodland. Portions of Allison Mine have been reclaimed to a condition suitable for fish and wildlife development through natural succession.

(3) Analyze the capability of the land within the proposed permit area before any mining to suport a variety of uses.

See response to Item H(4).

(4) Analyze the productivity of the land within the proposed permit area before any mining to include average yields obtained under high level of management.

Land capability and productivity are largely dependent on soil and topographic conditions. Soil characteristics, including pH, fertility, and stoniness and length and steepness of slope determine the suitability of lands for agriculture, forestry, urban, or commercial use.

A modern detailed soil survey of Belmont County was published in 1981 by the USDA Soil Conservation Service (SCS). Soil maps and supporting data were reviewed to determine land capability and productivity of Y&O Coal Company's Allison Mine site. Results of a revegetation assessment study completed by D'Appolonia in 1982 provided further site-specific information.

Three general soil types are presented at the Allison site. These include:

- o Deep, well-drained, silty and clayey soils developed in residuum from interbedded sedimentary rocks. These soils include the Westmoreland and Lowell soil series on hillsides and ridgetops.

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- Deep well- and moderately well-drained silty and clayey soils developed in mixed colluvium. These soils include the Richland and Brookside soil series on foot slopes.

- Deep, well-drained soils developed in alluvium on flood plains. These soils include the Chagrin soil series.

SCS mapping of the Allison site also reports two miscellaneous land types including mine dumps (typically refuse) and Udiorthents (man-influenced soils composed mainly of cut and fill materials). Residual soils on hillsides and ridgetops comprise most of the Allison site with small amounts of footslope and flood plain soils.

Capability class groupings show in a general way the suitability of soils for most field crops. The soils are grouped according to limitations, the risk of drainage when used, and the way they respond to management.

The broadest groups of capability classes are designed by Roman numerals I through VIII. Soils in Class I have the broadest choice of uses and the least risk of damages when used, while the landforms and soils in Class VIII are so steep, rocky, or otherwise limited that their use is generally restricted to wildlife habitat or water resources conservation. Limitations on the choice of uses increase with increasing capability class number. Only Classes I through IV are suited to row cropping under appropriate conservation and management.

Capability subclasses are groupings within a class designated by a subscript letter. An 'e' indicates that the major limitation is erosion risk unless clear growing plant cover is maintained. A 'w' indicates that excess water on or in the soil interferes with cultivation or plant growth. An 's' shows that the soil is strong, droughty, or has a shallow root zone.

Capability subclasses for soils present at the Allison site are summarized as follows:

- Zero to 2 percent slopes - Capability subclass w (Chagrin soils).

- Three to 8 percent slopes - Capability subclass IIe (Westmoreland soils).

- Eight to 15 percent slopes - Capability subclass IIIe (Lowell soils).

- Fifteen to 25 percent slopes - Capability subclass IVe (Westmoreland, Lowell, and Brookside soils).

- Twenty-five to 40 percent slopes - Capability subclasses VIe and VIIs (Westmoreland, Lowell, Brookside, and Richland soils).

- Forty to 70 percent slopes - Capability subclass VIIe (Westmoreland and Lowell soils).

The SCS does not assign capability ratings to mine dumps or Udorthents.

Based on the capability ratings, most of the lands at the Allison site are capable of supporting woodland or pasture, while small areas on valley bottoms and ridgetops can support field crops. Urban or commercial development is severely limited by slope on most upland areas and flood hazard is a risk on bottomlands.

Table H.1 presents estimated yields under a high level of management for major crops commonly grown in the area. Actual yields may be higher or lower in any given year, depending on variation in rainfall temperature, or other climatic factors. Forest productivity data in the form of site indices for common commercial trees is given in Table H.2. Site index is the height in feet that the dominant trees of a given species growing in managed stands attain in a specified period of time. Site indices are typically computed on the basis of 50 years of growth.

The agricultural crop yields in Table H.1 are typical of the region and yields decrease with increasing slope on footslopes and upland soils. Forest productivity data are the principal high yielding commercial tree species suited to the region.

The land capability and productivity data indicate that optimal use for most areas of the Allison site are suited to woodland, wildlife habitat, or pasture, while some areas are suited to hay or row crop production. Urban or commercial use is generally restricted by steep slopes or flood hazard.

TABLE H.1
AGRICULTURAL PRODUCTIVITY DATA[1]
ALLISON MINE
THE YOUGHIOGHENY & OHIO COAL COMPANY
BEALLSVILLE, BELMONT COUNTY, OHIO

SOIL SERIES	SLOPE RANGE (%)	CORN (BU/A)	WINTER WHEAT (BU/A)	OATS (BU/A)	GRASS-LEGUME HAY (TONS/A)	PASTURE (AUM)[2]
Westmoreland	3-8	110	35	70	3.5	5.8
	15-25	70	30	60	3.0	4.5
	25-40	-[3]	-	-	-	4.0
Lowell	8-15	100	35	60	3.7	5.8
	15-25	90	30	55	3.5	5.5
	25-35	-	-	-	-	4.0
Richland	25-35	-	-	-	-	4.0
Brookside	15-25	90	35	55	4.0	7.0
Chagrin	0-2	125	45	65	4.5	7.0

[1] Summarized from unpublished soil series descriptions and the Soil Survey of Belmont County, Ohio (USDA SCS in cooperation with ODNR, Division of Lands and Soil and Ohio Agricultural Research and Development Center, 1981). Yield estimates are those expected under a high level of management.

[2] AUM = Animal Unit Month. The amount of feed or tonnage required to feed one animal unit (one cow, one horse, five sheep, or five goats) for 30 days.

[3] Lack of an entry indicates the soil is not suited to that crop or the crop is not commonly grown in that soil.

TABLE H.2
FOREST PRODUCTIVITY DATA
ALLISON MINE
THE YOUGHIOGHENY & OHIO COAL COMPANY
BEALLSVILLE, BELMONT COUNTY, OHIO

SOIL SERIES	SLOPE RANGE (%)	TREE SPECIES	SITE INDEX
Westmoreland	3-15	Northern Red Oak	76
		Yellow Poplar	86
		Eastern White Pine	70
	15-70	Northern Red Oak	81
		Yellow Poplar	90
		Eastern White Pine	75
Lowell	8-15	Northern Red Oak	70
	15-70	Northern Red Oak	70
		Yellow Poplar	90
		Short Leaf Pine	80
Richland	25-35	Yellow Poplar	95
		Northern Red Oak	85
Brookside	15-40	Northern Red Oak	86
		Yellow Poplar	96

(1) Summarized from unpublished soil series descriptions and the Soil Survey of Belmont County, Ohio (USDA SCS in cooperation with the ODNR, Division of Lands and Soil and the Ohio Agricultural Research and Development Center, 1981).

(5) Is any land within the proposed permit classified as prime farmland? X Yes, _____ No.

The U.S. Department of Agriculture, Soil Conservation Service letter concerning the determination of prime farmland is included in the response of Item I(1) of Part 2, pages 16A through 16C.

(6) Describe the use of the land, including the creation of permanent water impoundments, that is proposed to be made of the land following reclamation, including information regarding the utility and capacity of the reclaimed land to support a variety of alternative uses.

Following final reclamation and abandonment of the permit area of the Allison Mine, the land will be returned to a condition suitable for fish and wildlife land use through natural succession. Support of alternate land uses is limited due to steep and irregular slopes and flooding potential. At abandonment, with guidance of the Ohio's Division of wildlife, the freshwater pond may remain for wildlife enhancement.

(7) Are there existing land use policies and plans adopted by any governmental agency for the proposed permit and adjacent areas? _____ Yes, X No.

(8) If "yes" to item H(7) above, submit as an addendum to the permit application, the comments of the governmental agency that administers the land use policy or plan.

Not applicable.

(9) Has any owner of land within the proposed permit area commented on the proposed use of the land following reclamation? _____ Yes, X No.

(10) Describe how the proposed land use is to be achieved and the necessary support activities that may be needed to achieve the proposed land use.

Upon abandonment of all mining activities at the Allison Mine, all surface structures will be disassembled and removed from the site and the entries will be sealed according to the approved plan. The site will be graded, soil covered, where necessary, and vegetated in order to provide conditions suitable for fish and wildlife land use through natural progression. Because the Allison Mine site has been idled, temporary protective barriers have been provided to prevent entry into the mine.

(11) Describe the consideration which has been given to making all of the proposed coal mining activities consistent with surface owner plans and applicable state and local land use plans and programs.

Not applicable.

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(12) Is the post mining land use to be different from the pre-mining land use? _____ Yes, __X__ No.

(13) Has the proposed permit area been previously mined? __X__ Yes, _____ No. If "yes", provide the following information, if available.

(a) Type of mining method Underground: room and pillar
(b) Coal seam mined Pittsburgh No. 8 coal
(c) Non coal mineral mined not applicable
(d) Extent of mining _____ acres - not applicable
(e) Approximate dates Operation commenced in 1967
(f) Land use preceding mining Natural undeveloped woodland

I. PRIME FARMLAND INVESTIGATION

(1) Does the proposed permit area include any land that is prime farmland, taking into consideration the negative determinations listed in paragraph (K)(2) of Rule 1501:13-4-13 of the Administrative Code? _____ Yes, __X__ No.

(2) If the response to item I.(1) is "yes", submit Attachment 15.

(3) If the response to item I.(1) is "no", submit Attachment 16.

Based on the attached soil survey conducted by the Belmont County SCS, small sections of land within the permit boundaries have been determined as prime farmland. However, all land within the permit area has been utilized in the mining of coal and associated mining activities since 1967. Furthermore, based on ODNR regulations, an exemption to the prime farmland classification for the limited areas is valid since the land has not been used as prime farmland for five of the last ten years and flooding by Captina Creek.

PART 3

RECLAMATION AND OPERATIONS PLANS

A. GENERAL REQUIREMENTS

(1) Describe the type and method of coal mining procedures.

The Y&O Coal Company previously mined coal from the Pittsburgh No. 8 seam using room-and-pillar mining techniques. Due to the current coal market, the mine has been idled and will remain in an inactive status until the market improves. Prior to shutdown, room-and-pillar mining techniques provided for 50 percent extraction from the Pittsburgh No. 8 seam.

(2) Describe the proposed engineering techniques to be used in this mining operation.

The Y&O Coal Company uses currently accepted and practiced engineering techniques for all mining, shutdown, and reclamation operations performed at the Allison Mine.

(3) Anticipated annual production of coal: Not applicable tons.
Anticipated total production of coal: Not applicable tons.

(4) List the major pieces of equipment to be used for all aspects of the operation.

Due to the inactive status of the mine, all mining equipment have been removed from the underground mine and an equipment stockyard has been established on the surface. All reclamation operations will be performed by independent contractors who supply, operate, and maintain the necessary equipment. A list of active equipment is provided on the attached pages. Y&O, on an as-needed basis, will transfer or borrow equipment from the Allison Mine for use at the Nelms No. 2 facility.

See supporting doc.

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(5) Describe the construction, modification, maintenance, and removal (unless to be retained for post mining land use) of the following facilities:

(a) Dams, embankments, and other impoundments (in addition, submit Attachments 20 or 21).

Three sedimentation ponds (002, 008 and 011) have been modified. These ponds will be maintained during the inactive status of Y&O Coal Company's Allison Mine. At the confluence of Long Run and Piney Creek, Allison Mine established a borrow area and Sedimentation Pond 002. Pond 002 is located south of Piney Creek near the confluence of Long Run and is used for detention of mine water pumpage. Pond 002 has been located upslope to install a new mine water pump. Relocated Pond 002 will continue to serve as a detention pond for mine water from the mine workings. The excavated pond material was used to fill the previous pond. The fill was placed in horizontal lifts and well-compacted. The overflow pipe discharges into Piney Creek.

Sedimentation Pond 011 will be modified to maximize its storage capacity in relation to the contributing watershed and affected area and is located within the supply yard area on the east bank adjacent Piney Creek. A soil berm along Piney Creek has been constructed in 2-foot (maximum) horizontal lifts and compacted to crest Elevation 940 to divert surface runoff into the pond prior to discharge into Piney Creek. The berm is designed with a 10-foot-wide crest and 2 to 1 (horizontal to vertical) side slopes. An 18-inch-diameter ACCMP serves as the primary spillway. The emergency spillway is a riprapped, trapezoidal channel and capable of discharging the peak flow of a 10-year storm. For design plan, details, and guideline technical specifications reference Drawings Nos. 81-536-E4 through E6 and E8 through E10 in Appendix B.

At the toe of the recently reclaimed refuse disposal embankment are three sediment ponds in series which receive water from a trapezoidal diversion ditch. The ponds are identified as "Sedimentation Pond No. 008 System." A sediment trap has been provided prior to the inflow point to minimize the sediment load on the pond. The emergency spillway, a riprapped, trapezoidal channel designed for the 100-year design storm, is provided in Pond 008A. Pond 008A is an excavated pond with a crest elevation of 938 feet and is the first of the pond series. Discharge into Pond 008B is through an 18-inch-diameter CMP overflow pipe and a riprapped, trapezoidal spillway. A similar overflow system is used between Pond 008B and Pond 008C. The primary pond discharge spillway was constructed in Pond 008C for overflow into Piney Creek by means of a riprapped, trapezoidal spillway. Design plans, details, and guideline technical specifications are presented on Drawings Nos. 81-250-E21, through E24 in Appendix B.

The freshwater pond dike, a soil dike constructed across Long Run, has been raised to approximate Elevation 961 to provide a controlled release

with current state regulations and has been reclaimed. The pond previously provided makeup water for the preparation plant. The pond discharges through two 48-inch-diameter CMP overflow pipes for normal operation and a 15-foot-wide, 20-foot-deep emergency spillway. For the pond location and cross sections see Drawings Nos. 82-1862-E2 and E8 in Appendix B. Guideline technical specifications are presented on Drawing No. 81-536-89 in Appendix B.

The storm storage and sediment storage capabilities of all the sedimentation ponds have been discussed with OEPA and ODNR. Variances from the 10-year, 24-hour pond storm storage requirements have been granted for Sedimentation Ponds 011 and 008 due to insufficient area available for sedimentation pond construction. However, the ponds have been sized for the maximum possible storage that is available and supplemented by other sediment control facilities.

At final abandonment, Ponds 002, 008 and 011 will be eliminated by either filling or breaching the dikes. The ponds will be soil covered, where necessary, seeded, fertilized, and mulched. Until final abandonment, routine maintenance will involve removal of debris from the trash racks and periodic removal of sediment from the ponds.

(b) Overburden and topsoil handling and storage areas and structures.

Allison Mine is inactive and has no topsoil stockpiles for final reclamation. While the operation remains idle, there will be no need to stockpile topsoil or cover material. When the operation is activated, an overburden and topsoil handling and storage plan will be determined.

(c) Coal removal, handling, storage, cleaning and transportation areas and structures.

All of the structures associated with the removal, handling, storage, cleaning, and transportation of coal will remain idle with no modifications or construction scheduled during the inactive status. These structures include the preparation plant and office, air shaft main portal, hoist house, train loadout, raw and clean coal storage silos, raw coal, clean coal, and refuse conveyors, crusher house, rock bin, and office shop, and supply buildings.

The areas affected by the handling and storage of coal are cleaned of all coal and coal waste deposits and, where required, soil covered and revegetated. The surface water drainage plan provides for the collection and routing of all contaminated surface water runoff to appropriate sedimentation control facilities.

(d) Spoil, coal processing waste, and non-coal waste removal, handling, storage, transportation, and disposal areas and structures.

The refuse disposal embankments at the Allison Mine were developed by transporting the refuse by truck or conveyor and spreading the material by dozer in uniform horizontal lifts. The valley-fill refuse disposal embankment has been reclaimed per the last S.E.M.M. submittal and is not included in the permit area. Reclamation of the facility involved the construction of surface drainage facilities, elimination of the head-of-hollow ponds, regrading the embankment crest, soil covering all exposed refuse surfaces, and seeding. Located within the vicinity of the permit area are two pre-act abandoned, reclaimed refuse disposal facilities. They are located east of Piney Creek.

(e) Mine facilities.

No plans have been made for modification of mine facilities at the Allison Mine. The only operation to be performed in conjunction with mine facilities is the pumping of mine water from the mine and natural ventilation of gases. The shaft has been provided with a temporary barrier to prevent entry into the mine. Upon final abandonment, all facilities will be dismantled and removed from the site and the shaft will be permanently sealed as addressed in the response to Item 8.12 of Part 3, page 12, and shown in cross section on Drawing No. 82-1062-84 in Appendix A.

(f) Water and air pollution control facilities.

Y&O Coal Company's Allison Mine did not require any point source air pollution control facilities since the coal processing facility does not include thermal dryers. Water pollution control facilities include the system of clean water diversion ditches, and disturbed area collector ditches which route water to sedimentation control ponds. The watershed area within the office and mine shaft area, as well as the reclaimed refuse disposal facility, haul roads, access roads, and service roads and their respective ditches, have positive drainage towards associated sedimentation ponds.

Diversion pipes installed beneath the reclaimed refuse embankment has occasionally discharged acidic water. This water is collected in Pond 008 prior to discharge into Piney Creek. In the past, the collected water in Pond 008 has been treated with sodium hydroxide to improve the effluent quality. However, as the refuse embankment has been reclaimed, chemical treatment of the water has not been necessary. The water will be monitored and if necessary chemicals added to meet effluent quality. Y&O Coal Company also has two sanitation treatment facilities. One is located along Piney Creek in the office and mine shaft area, and the other is located near the coal processing facilities. See the application map, Drawing No. 82-1862-E2 in Appendix A for location of all water pollution control facilities.

Y&O Coal Company will continue to monitor surface water discharge points bimonthly and ground water sampling locations quarterly in accordance with ODNR's and OEPA's requirements.

(6) Provide an estimate of the cost per acre to reclaim the mined area.

$ 2,500.00

8. EXISTING STRUCTURES

1. Are any existing structures proposed to be used in connection with or to facilitate the coal mining and reclamation operation? __X__ Yes, _____ No. If "yes", submit as an addendum to the permit application a description of each such structure. The description shall include the information required by paragraph (B)(1) of Rule 1501:13-4-14 of the Administrative Code.

The structures used in conjunction with the mining of coal at the Allison Mine include an air shaft, bathhouse/portal, preparation plant, hoist house, raw coal silo and clean coal silo, crusher house, train loading facility, supply house, substation, two sanitary treatment facilities, mine slope, water storage tanks, conveyors, mine office building, and rock dust silo. All facilities are located adjacent Piney Creek, except the coal loadout facilities located adjacent Captina Creek. All coal processing and transportation facilities were constructed in the 1960's and are operable. None of the structures are being modified. A coal refuse disposal area is located west of and adjacent to Piney Creek and a fresh water pond located in Long Run are reclaimed and are not included in the permit area. All structures are located on Drawing No. 82-1862-82 in Appendix A.

Three existing ponds will be maintained while the mine is inactive. Sedimentation Pond 002 is relocated upslope of its original location to provide access for a mine pump pond. Sedimentation Pond 011 has been modified for temporary abandonment status of the area according to detail design plans and guideline technical specifications presented on Drawings Nos. 81-536-E4 through E6 and E8 through E10 in Appendix B. The Sedimentation Pond 008 system is located at the toe of the abandoned, reclaimed refuse disposal facility. Modifications have been made according to design plans and guideline technical specifications on Drawings Nos. 81-250 E21 through E24 in Appendix B.

2. Are any existing structures proposed to be modified or reconstructed for use in connection with or to facilitate the surface coal mining and reclamation operation? _____ Yes, __X__ No.

C. BLASTING PLAN

1. Will there be blasting operations conducted during this coal mining and reclamation operation? _____ Yes, X No. If "yes", respond to items C(2) through C(7).

2. Indicate the types and approximate amounts of explosives to be used for each type of blasting operations to be conducted.

Not applicable

3. Describe the procedures and plans for recording and retaining the information required by paragraph (G) of Rule 1501:13-9-06 of the Administrative Code.

Not applicable

4. Describe the warning signals to be given prior to the blast and after the blast.

Not applicable

5. Describe the procedures or methods of controlling access to the blasting site.

Not applicable

6. Describe the plans for recording and reporting to the Chief the results of any required preblasting surveys.

Not applicable

7. Describe the unavoidable hazard conditions for which deviations from the blasting schedule will be needed.

Not applicable

D. RECLAMATION PLAN - GENERAL REQUIREMENTS

1. Provide a detailed timetable for the completion of backfilling and grading for each mining year.

Y&O Coal Company's Allison Mine is inactive. Reclamation of surface areas within the permit area have been conducted in accordance with the plans and specifications presented in Appendix 8 and current regulations. However, when reopened for coal production, a reclamation plan will be submitted that includes backfilling and grading.

Final regrading and backfilling will occur upon abandonment of the mining activities. This will include the dismantling of all surface structures; the sealing of the shaft and slope; regrading and seeding; and, following the establishment of a good stand of vegetation, the backfilling or breaching of sedimentation ponds 002, 008 and 011. All grading and backfilling will be performed according to guideline technical specifications presented on Drawing No. 81-536-88 in Appendix 8.

2. Provide a detailed timetable for the completion of resoiling for each mining year.

The operation is inactive and has been reclaimed to the extent possible to minimize erosion. When mining operations are resumed, a resoiling plan will be provided.

3. Provide a detailed timetable for the completion of planting for each mining year.

When mining activities are resumed, a planting schedule will be submitted such that planting is conducted as contemporaneously as possible with the grading and soiling of disturbed lands timetable. Planting should take place within the next planting season following soil placement. Following the completion of the proposed grading and backfilling plan for the site, the disturbed area will be seeded according to the developed seeding plan. Major planting will occur following abandonment of mining activities.

4. Describe the plan for backfilling, soil stabilization and grading.

The permit area has been backfilled, soil stabilized, where necessary, and graded to minimize erosion in accordance with guideline technical specifications presented on Drawing No. 81-536-89 in Appendix 8 for the temporary inactive status of the mine. When the mine reopens, a detailed plan will be submitted.

5. Describe the plan for the removal, storage, and redistribution of topsoil, subsoil, or approved alternative resoiling material to meet the requirements of Rule 1501:13-9-03 of the Administrative Code. If alternative resoiling material is to be used, submit Attachment 19.

The natural soil at the Allison Mine site is suitable for supporting long-term vegetative growth, as established in the soil assessment performed. As the mine is inactive, no plans are necessary; however, when reopened, a detailed soil handling plan will be submitted that will include soil to be stripped from the surrounding hillsides prior to development of those areas. If the stripped soil cannot be directly

placed on a disturbed surface for vegetation, the soil will be stockpiled in an easily accessible location and seeded to prevent erosion of the stockpile. Plans for removal and redistribution of topsoil are presented in guideline technical specifications, Drawing No. 81-536-89 in Appendix B.

See supporting doc.

6. Provide the following information for the revegetation plan:

(a) Schedule for revegetation to include planting of temporary vegetation.

Revegetation of Y&O Coal Company's surface facilities was performed in accordance with the specification presented on Drawing No. 81-536-89 in Appendix B. Wheat has been included in the seed mixture to act as a temporary cover until germination of the remaining seed mixture has taken place. At final reclamation, seeding, fertilizing, and mulching will take place in the first growing season following soil covering.

(b) List the species and amounts of seeds and seedlings to be used.

Y&O Coal Company will plant seed in material that is moderately dry and material that has not been excessively compacted. If compaction has been performed, the seedbed will be loosened by use of proper equipment to enhance the growth medium. A seed mixture suitable for fall planting is:

- Wheat - 45 pounds/acre for temporary cover (oats may be used as a substitute for wheat),
- Perennial Ryegrass - 15 pounds/acre,
- Tall Fescue - 20 pounds/acre,
- Birdsfoot Trefoil - 10 pounds/acre,
- Red Clover - 10 pounds/acre, and

The same seed mixture is suitable for spring planting, but wheat is not necessary since a temporary cover is not required. Fertilizer should be applied on all newly-seeded areas at the following rates:

- Nitrogen - 50 pounds/acre in water soluble form (e.g., ammonium nitrate),
- Phosphorus - 50 pounds/acre of P_2O_5, and
- Potassium - 100 pounds/acre of K_2O.

Lime will be applied at a rate of 2 tons per acre yearly to insure that the vegetation presently established is maintained.

The seeding and fertilization recommendations were the result of a soil testing program conducted on soils in the subject area. See response to Item D.5 of Part 3, page 9 for results of the study.

(c) Describe the methods to be used in planting and seeding.

The seed will be applied by a hydroseeder or other approved application and if shredded wood fiber mulch is used, it can be applied simultaneously with the seed.

7. Describe the mulching techniques.

It has been recommended that 1,000 pounds/acre of shredded wood fiber material with an incorporated tackifier be applied by a hydroseeder simultaneously with the seed mixture. If a straw or hay mulch is used, it should be applied at 2,000 pounds/acre. Application of the straw or hay can be done by mechanical means or by hand, depending on acreage requiring mulching.

8. Describe the soil testing plan for evaluation of the results of topsoil handling and reclamation procedures related to revegetation.

Tests were performed on the soils of the subject area and from these, the soil and fertilization specifications were prepared. A copy of the results are included in the response to Item D.5 of Part 3, page 9. Once vegetation has been established, the successful stand of vegetation will be evaluated based on percent of cover according to Ohio DRN standards. If acceptable cover has not been established, the soil will be retested for pH, nitrogen, phosphorous, potassium and lime requirements to determine additional nutrients required to provide a successful stand of vegetation.

9. Describe the measures to be used to maximize the use and conservation of the coal resources.

Allison Mine utilizes room-and-pillar mining techniques for the maximum coal extraction possible of the Pittsburgh No. 8 coal reserves by the development of mains, submains, and panels within safe, economical, and technical constraints.

10. Describe the measures to be employed to ensure that all debris, acid forming and toxic forming materials, and materials constituting a fire hazard are disposed of in accordance with paragraph (H) of Rule 1501:13-9-14 and paragraph (G) of Rule 1501:13-9-09 of the Administrative Code.

Since Allison Mine is presently inactive, acid-forming, toxic-forming, and debris materials such as chemicals, wood, and paper are not anticipated. If encountered, the waste materials will be transported to an approved off-site disposal facility. When reopened, similar procedures will be followed. When the mine reopens, coal and refuse mine development rock will be disposed in a controlled manner within the permit area as defined at that time.

11. Describe the contingency plans which have been developed to preclude sustained combustion of the materials mentioned in item (10) above.

Combustion of toxic-forming or acid-forming materials, or debris such as chemicals, wood, and paper is not anticipated. However, if encountered, these materials will be disposed at an approved off-site facility. If mining activities are resumed at Allison Mine and coal refuse and mine development rock will be placed in a controlled manner, that is, spread in thin lifts, compacted, and reclaimed when possible to minimize the possibility of spontaneous combustion. All other combustible debris would be removed from the site to an approved disposal facility.

12. Describe the measures, including appropriate cross sections and maps, to be used to seal or manage underground mine openings within the proposed permit area.

Upon abandonment of mining operations at Allison Mine, all shafts will be sealed according to the following procedure:

Shaft - The sealing of the mine shafts will be in accordance with federal and state regulations. The shafts will be filled with noncombustible material over the entire depth. A reinforced concrete cap will be used to seal the shaft on the surface. The concrete cap will be constructed such that the cap will extend 3 inches above the ground surface. A 2-inch-diameter (minimum) vertical ventilation pipe extending 15 feet above the surface of the shaft will be placed through the cap. The cap will be covered with 5 feet of soil and graded into the existing ground surface. The soil cover over the cap will be crowned to maintain surface runoff if settlement occurs, and seeded.

A detailed drawing of the sealing of the shaft is included on Drawing No. 82-1862-E4 in Appendix A.

13. Describe the measures, including appropriate cross sections and maps, to be used to plug, case, or manage exploration holes, other bore holes, wells and other openings within the proposed permit area.

When it has been determined that cored and/or bored holes are no longer required, they will be sealed according to the following procedure:

Cored and Bored Holes - All cored and/or bored holes will be grouted to within 2 feet of the surface with a concrete grout. The surface will be regraded so that no surface runoff will collect or pond around the hole entrance.

A detailed drawing of the sealing of cored and/or bored holes is included on Drawing 82-1862-E4 in Appendix A.

14. Describe the steps to be taken to comply with the Clean Air Act (42 U.S.C. 7401 et seq.).

Compliance with the Clean Air Act requires the control of fugitive dust. Fugitive dust will be controlled by applying oil or wetting agents on all roads or revegetating within the disturbed areas. As the mine is inactive, fugitive dust is not anticipated. No monitoring will be required due to the materials handling system employed at Y&O Coal Company's Allison Mine when mining operations resume.

15. Describe the steps to be taken to comply with the Clean Water Act (33 U.S.C. 1251, et seq.).

Y&O has been granted an NPDES permit by OEPA to comply with the Clean Water Act which consists of the surface drainage and sediment control plan and water quality monitoring. Piney Creek and Captina Creek upstream and downstream of the facilities, and the sedimentation ponds will continue to be monitored bimonthly for water quality and quantity. The water is tested for pH, specific conductivity, total suspended solids, total iron, total manganese, and total sulfate to serve as an indicator if problems do arise. If the effluent limits are exceeded, additional treatment will be provided.

16. Identify any other applicable air and water quality laws and regulations and health and safety standards and describe the steps to be taken to comply with each.

Y&O Coal Company will design, construct, and maintain all embankments and impoundments within the Allison Mine facility in accordance with MSHA's standards.

17. Describe the degree to which the reclamation plan is consistent with local physical, environmental, and climatological conditions.

The reclamation plan for the Allison Mine consists of returning the land in accordance with regulations to a condition suitable for fish and wildlife development through natural succession. By returning the land to its natural state through natural processes, the reclamation plan is consistent with the local physical, environmental, and climatological conditions.

18. Describe the measures to be used to stabilize and protect all surface areas, including spoil piles, affected by the mining activities.

All surface areas will be protected by nonerodible materials or vegetation. If mining operations resume, the refuse disposal facility will be constructed in compacted lifts, soil covered, and vegetated as required.

A slope stability analysis was performed for the existing embankment at the Allison Mine facility. The analysis was performed using the computer program STABL, developed by Purdue University for the Indiana State Highway Commission. STABL solves general slope stability problems using an adaptation of the Bishop's Modified Method of Slices. The factors of safety, critical failure circles, material properties, and piezometer levels used in the analysis are shown on Drawing 81-250-E4 in Appendix B.

The stability analysis was performed for both static and seismic (pseudostatic) loading conditions. Previous D'Appolonia studies of the seismicity and recent recommendations published by the U.S. Geological Survey[2] suggest that a seismic acceleration of 0.05g, acting in a horizontal direction only, is appropriate for the pseudostatic representation of earthquake loadings at this site.

The piezometric level used in the analysis of the embankment is based on recorded piezometric levels measured from the piezometers installed during a subsurface investigation.

The engineering properties are based upon SPT blow counts from the subsurface investigation, laboratory testing, review of technical literature, previous test data, and D'Appolonia's experience with similar materials. Based on the above, the combined coal refuse's effective internal friction angle was reduced to 30 degrees (combined coal refuse) and the cohesion intercept equal to zero.

The stability analysis indicates that the most critical failure circle of the embankment has factors of safety greater than the minimum criteria. The minimum safety factors required by MSHA and OSNR are 1.5 and 1.2 for static and seismic loading conditions, respectively.

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[2] U.S. Geological Survey, Department of the Interior, July 13, 1976, "Quake Hazard Map of the United States."

19. Describe the plan for minimizing to the extent possible and using the best technology currently available disturbances and adverse impacts of the operation on fish and wildlife and related environmental values and achieving enhancement of such resources where practical.

By returning the Allison Mine site to a state suitable for development of fish and wildlife through natural succession, the environmental values will be enhanced. Y&O Coal Company is disposing of toxic- and acid-forming materials in a controlled manner, limiting surface disturbances to the site and seeding disturbed areas. Further enhancement measures will be taken into consideration during final reclamation.

E. RECLAMATION PLAN - PROTECTION OF HYDROLOGIC BALANCE

1. Describe the measures to be taken during and after the proposed coal mining operations to ensure the protection of:

(a) The quality of surface and ground water systems within the proposed permit and adjacent areas from the adverse effects of the proposed coal mining activities.

Y&O Coal Company takes the necessary measures to assure that surface and ground water quality is protected at their Allison Mine. Affected areas not necessary to maintain the facility on an inactive status have been reclaimed, and surface drainage and sedimentation control facilities have been modified to minimize adverse effects and maximize control of water. No further expansion of the permit area is planned during the current status of the mine so the quality of surface and ground water should improve. Surface water quality will be monitored bimonthly and following precipitation events of greater than one inch of rainfall. The water will be tested for pH, specific conductivity, total suspended solids, total iron, total manganese, total sulfate, total acidity and total alkalinity. If toxic materials are encountered, they will be transported to an approved off-site disposal facility.

Ground water quality will be monitored in accordance with the monitoring plan submitted in 1981 (copy attached). Surface water is monitored in accordance with the approved OEPA monitoring plan (copy attached).

A seep adjacent to the permit area from a pre-act refuse embankment exists and is being monitored to verify no additional contamination is occurring from the permit area.

See supporting doc.

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(b) The rights of present users of surface and ground water.

The present users of surface and ground water have the rights to water that will not affect the health and well-being of the individual or individuals. If the users' rights have been infringed upon due to the mining operations or associated mining activities, an alternate water source could be developed.

Room-and-pillar mining techniques conducted by Y&O have not affected ground water wells, surface ponds, or streams to date and is not anticipated. Surface water collected is treated by sedimentation or by chemical when necessary to meet effluent quality prior to discharge into Piney Creek.

(c) The quantity of surface and ground water within the proposed permit and adjacent area from adverse effects of the proposed coal mining activities.

Surface and ground water quantities of flow are monitored to determine any variation in flow. Because no additional expansion or disturbance is being considered in the present affected area and the mine operation is using room-and-pillar techniques, the dimunition of surface and ground water is not anticipated. Upon reclamation, the surface runoff and ground water may fluctuate depending on backfilling operations and soil cover characteristics. However, since the area in question is small in comparison to the major watershed, the effects should be insignificant.

(d) If protection of the quantity of surface and ground water cannot be assured, describe alternative sources of water than can be developed.

If the quantity of water available for domestic or industrial use is diminished, alternate water sources could include piped water for a public source or water resources within the underlying sandstone, depending on the quantity and quality required. Surface water sources could also be developed by construction of ponds, reservoirs, or the damming of streams as long as natural drainage is not affected.

2. Describe the plan for the control of surface water drainage into, through, and out of the proposed permit area.

The surface water control plan for the Allison Mine involves a system of diversion and collection ditches, culverts, and sedimentation ponds. The permitted area will be graded towards the sedimentation ponds. The haul roads and access roads are graded toward haul road gutters and the sedimentation ponds. Diversion ditches serve to route all storm runoff from above the unaffected areas to Piney or Captina Creek or to original streams. All runoff from affected areas around the mine shafts and the coal handling facilities is diverted to sedimentation ponds which are provided with emergency and principal spillway. Detailed plans of the surface drainage plans and stream crossing designs are presented in Appendix B.

Y&O has submitted buffer zone and drainage variance requests which are included in Appendix C.

3. Describe the plan for the treatment of surface and ground water drainage from the area to be disturbed by the proposed coal mining activities.

Y&O Coal Company has used sodium hydroxide to treat water that had been routed to Sedimentation Pond 008. However, as the reclaimed refuse embankment has minimized the generation of poor quality water, sodium hydroxide is not to be used. No other plan has been adopted for the treatment of other ground water and surface water drainage since the detention time of the sedimentation ponds has proven a sufficient means of discharging the water within acceptable water quality standards. No sediment control facilities have been constructed within the mine office, bathhouse, or parking lot areas. These areas are grass or gravel covered and conscientiously maintained by Y&O Coal Company to eliminate the need for sedimentation control ponds.

4. List the quantitative limits on pollutants in discharges subject to paragraph (B) of Rule 1501:13-9-04 of the Administrative Code.

The current NPDES effluent limitations are attached.

5. Describe the plan for collection, recording, and reporting of surface and ground water quality and quantity data in accordance with paragraph (M)(2)(1)(c) of Rule 1501:13-9-04 of the Administrative Code.

The ODNR ground water and surface water monitoring plans are included in the response to Item E.1(a) of Part 3, page 15.

Due to the current inactive status of the Allison Mine, Y&O Coal Company has requested that ground water monitoring be discontinued until mining operations are resumed (see Appendix C for variance request).

ORIGINAL

The Youghiogheny and Ohio Coal Company

Corporate Offices:
P. O. Box 1000 - St. Clairsville, Ohio 43950
Phone: 614/695-4117

0277

September 30, 1983

APPROVED ☑
DISAPPROVED ☐
DATE 9-2-84
SIGNED [signature]
Chief

Mr. Larry W. Mamone
Ohio Department of Natural Resources
Division of Reclamation
Building B-3, Fountain Square
Columbus, OH 43224

RE: Stream Buffer Zones
Variance Request
Allison Mine
Beallsville, Belmont County, Ohio

Dear Mr. Mamone:

Pursuant to Section 1501:13-9-04 (R) of the Ohio Administrative Code, we herewith request an exemption from the stream buffer zone requirements for the perennial and intermittent streams located within one hundred feet of disturbed areas as indicated on the permit application map.

The areas in question qualify for an exemption based on Valid Existing Rights. The areas had been affected prior to passage of the current state environmental law and associated regulations.

Your favorable response to this request will be greatly appreciated. If there are any questions please contact Mr. Ronald R. Bevan of our St. Clairsville office.

Very truly yours,

J. A. Bloom, P.E.
Vice President,
Engineering & Operations

JAB/bfw

ORIGINAL

The Youghiogheny and Ohio Coal Company

Corporate Offices:
P. O. Box 1000 - St. Clairsville, Ohio 43950
Phone: 614/695-4117

0277

September 30, 1983

APPROVED ☑
DISAPPROVED ☐
DATE 4-2-84
SIGNED Larry Mamone
Chief

Mr. Larry W. Mamone, Chief
Ohio Department of Natural Resources
Division of Reclamation
Building B-3, Fountain Square
Columbus, OH 43224

RE: Surface Drainage Control
Variance Request
Allison Mine
Beallsville, Belmont County, Ohio

Dear Mr. Mamone:

Pursuant to Section 1501:13-9-04 (B) (3) of The Ohio Administrative Code, we herewith request an exemption from the surface drainage control requirements for the following areas at the above referenced mine:

1. The mine office/bathhouse area including the parking lot, access road and all associated facilities;

2. The reclaimed equipment storage yard and access road located southeast of the mine office;

3. The raw coal conveyor from the crusher house to the preparation plant and the clean coal conveyor from the preparation plant to the loadout facility; and

4. The clean coal silo, loadout conveyor and unit train loadout facility.

Due to the location of these areas, their minimal contribution of pollutants to surface runoff and their insignificant size when compared to the total disturbed area, construction of sedimentation control structures would be both impractical and cost prohibitive. We do propose however, to maintain either a vegetative or nonerodable cover on these areas and will perform all housekeeping necessary to keep these surface areas free of pollutant causing materials.

Your favorable response to this request will be greatly appreciated. If there are any questions, please contact Mr. Ronald R. Bevan at our St. Clairsville office.

Very truly yours,

J. A. Bloom, P.E.
Vice President,
Engineering & Operations

JAB/bfw

0277

ORIGINAL

The Youghiogheny and Ohio Coal Company

Corporate Offices:
P. O. Box 1000 - St. Clairsville, Ohio 43950
Phone: 614/695-4117

0277

March 23, 1984

Mr. Larry W. Mamone
Chief
Ohio Division of Natural Resources
Division of Reclamation
Building B-3
Fountain Square
Columbus, OH 43224

APPROVED ✓
DISAPPROVED ☐
DATE: 4-2-84
SIGNED Larry Mamone
Chief

RE: Ground Water Monitoring
Variance Request
Allison Mine
Beallsville, Belmont County, Ohio
Permit Application No. 0277

Dear Mr. Mamone:

Pursuant to Section 1501:13-9-04(M)(1) of the Ohio Administrative Code, we herewith request an exemption from the Ground Water Monitoring requirements for the Allison Mine since this mine is currently inactive and will remain inactive for the foreseeable future.

Your favorable response to this request will be greatly appreciated. If there are any questions, please contact Mr. Ronald R. Bevan at our St. Clairsville office.

Very truly yours,

James A. Bloom, P.E.

James A. Bloom, P.E.
Vice President,
Engineering & Operations

JAB/bfw
CC: D'Appolonia Consulting Engineers

Guideline To New Effluent Limitations For All Coal-Related Activities (D-Permits)
(except purging of processing water from new coal washing facilities)

1) a) If sole source of discharge is from Underground Mine Drainage..... Go to Step 4

b) All other drainage situations..... Go to Step 2

2) a) If measurable precipitation event greater than a 10 yr/24 hr event occurred within last 24 hours.....the effluent limitation is..... pH = 6 ~ 9

b) If measurable precipitation event less than or equal to a 10 yr/24 hr event occurred within last 24 hours.....the effluent limitations are..... pH = 6 ~ 9
(Settleable Solids) SS = 0.5 ml/l

c) If no measurable precipitation event occurred within last 24 hours..... Go to Step 3

3) a) If affected watershed has been revegetated.....the effluent limitations are..... pH = 6 ~ 9
SS = 0.5 ml/l

b) If affected watershed has not been revegetated..... Go to Step 4

		Maximum	Monthly Average
4) a) If pH greater than 6.0 and iron less than 10.0 mg/l before treatment.....pH =		6 ~ 9	
(Total Suspended Solids) TSS =		70.0 mg/l	35.0 mg/l
**Fe =		7.0 mg/l	3.5 mg/l
*Fe =		6.0 mg/l	3.0 mg/l

	Maximum	Monthly Average
b) For all situations different from 4) a).....pH =	6 ~ 9	
TSS =	70.0 mg/l	35.0 mg/l
**Fe =	7.0 mg/l	3.5 mg/l
*Fe =	6.0 mg/l	3.0 mg/l
Mn =	4.0 mg/l	2.0 mg/l

**Limitation to areas affected before May 29, 1981.

6. In addition to the information required by item (0)(12) of this Part, describe, including appropriate drawings, any permanent entry seals and downslope barriers designed to ensure stability under anticipated hydraulic heads developed while promoting mine inundation after mine closure.

There are no plans for permanent barriers in the mine, as the mine is located approximately 300 feet beneath the ground surface and is accessed by a shaft and slope. Upon abandonment of mining operations, the mine will flood and stabilize at the elevation of the aquifer which will be at a significant depth below the ground surface. The shaft will be sealed as described in the response to Item D.12 of Part 3, page 12.

F. DIVERSIONS

1. Will the proposed coal mining activities result in diversions of overland flow away from the disturbed areas? __X__ Yes, _____ No. If "yes", describe, including maps and cross sections, the diversion to be constructed to achieve compliance with paragraph (D) of Rule 1501:13-9-04.

The Allison Mine facility has a diversion ditch system which will divert surface runoff around the mine offices and storage area to discharge directly into Piney Creek. Upon approval of the reclamation of the refuse embankment, the diversion ditch can be rerouted to directly discharge into Piney Creek. For details, see Drawing No. 81-536-03 in Appendix B.

2. Will the proposed coal mining activities result in the diversion of intermittent or perennial streams within the proposed permit area? __X__ Yes, _____ No. If "yes", describe, including maps and cross sections, the diversions to be constructed to achieve compliance with paragraph (E) of Rule 1501:13-9-04 of the Administrative Code.

A system of diversion ditches is incorporated within the refuse disposal area, the office-supply yard area, and in the coal loading facilities drainage plan to divert overland flow away from disturbed areas. All diversions are included on Drawing No. 81-536-03 in Appendix B.

G. PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES

1. May the proposed coal mining activities adversely affect any public parks or historic places? _____ Yes, __X__ No.

H. MINING NEAR OR THROUGH A PUBLIC ROAD

If the response to item D(6) in Part 1 of the permit application is "yes", describe the measures to be used to ensure that the interests of the public and landowners are protected.

The Y&O Coal Company uses Wayne Township Roads 74, 81, 87, and 88 to access all areas of their Allison Mine. Light vehicular traffic from the mine operations or residential dwellings is the main source of traffic. Due to the inactive status of the mine, the effect on the roads is minimal. In the event of start-up, Y&O Coal Company as in the past will assist in the maintenance and snow removal of township roads.

I. SUBSIDENCE CONTROL SURVEY

1. List all structures which exist within the proposed permit and adjacent areas.

Mine office, washhouse, sanitation plant (2), supply house, raw coal silo, crusher house, substation, water storage tanks, preparation plant/office, refuse stacker, clean coal storage silo, loadout facility, rock dust silo, slope entry, shaft entry and conveyor systems.

2. List all renewable resource lands which exist within the proposed permit and adjacent areas.

Not applicable.

3. Identify those structures which could be materially damaged as a result of subsidence.

Not applicable

4. Identify those renewable resource lands which could suffer diminution of the reasonably foreseeable use or value of such lands as a result of subsidence.

Not applicable.

5. If structures or renewable resource lands exist within the permit or adjacent areas that could be damaged or otherwise adversely affected by subsidence, complete Section (J).

Not applicable

J. SUBSIDENCE CONTROL PLAN

1. Describe the method of coal removal and the size, sequence and timing for the development of underground workings.

The Allison Mine mined the Pittsburgh No. 8 coal using room-and-pillar mining techniques to achieve 50 percent extraction.

2. For areas above the underground works, indicate the following on the most recent available U.S.G.S. 7.5 min. topographic map:

(a) The extent of the works to be used or developed on a year-by-year basis for the proposed permit term.

See Drawing No. 82-1862-E4 in Appendix A.

(b) Indicate areas of full recovery (longwall panels or areas where pillars will be removed).

Not applicable.

(c) Indicate areas in which measures will be taken to prevent or minimize subsidence and subsidence related damage.

The entire limits of the underground mine plan, as room-and-pillar mining techniques will only extract 50 percent of the coal.

3. Describe in detail the measures to be taken in the areas indicated in item (2)(c) to prevent or minimize subsidence and subsidence related damage.

Room-and-pillar mining with 50 percent extraction.

4. Will monitoring be done to test the effectiveness of the measures described in (3)? _____ Yes, __X__ No.

5. Describe the anticipated effects of the planned subsidence including typical extent of vertical and horizontal displacement at the surface.

Not applicable

6. If adverse effects such as material damage to structures or diminution in the value or reasonably foreseeable use of renewable resource lands due to planned subsidence are anticipated, describe the measures to be taken to mitigate or remedy such adverse effects.

Not applicable

7. If adverse impacts are anticipated to the quality or quantity of ground or surface waters due to planned subsidence, refer to the hydrology sections (Part 2 B and F, and Part 3 B) to describe such impacts and to list remedial or mitigating measures to be taken.

Not applicable

K. TRANSPORTATION FACILITIES

1. Are any roads to be constructed, used, or maintained within the proposed permit area? __X__ Yes, _____ No. If "yes", submit an addendum to the permit application providing the detailed description required by paragraph (J) of Rule 1501:13-4-14 of the Administrative Code.

A system of access roads is within the limits of the permitted area. The access roads provide entry to the coal processing areas and to the toe of the reclaimed refuse disposal facility and sediment control ponds. The locations of the roads and cross sections are presented on Drawings Nos. 82-1962-E2 and 82-1962-E10 in Appendix A.

2. Are there any conveyor or rail systems to be constructed, used, or maintained within the proposed permit area? __X__ Yes, _____ No. If "yes", submit the addendum required by item K(1) above.

Transportation of coal between the mine facilities at the Allison Mine is done by a coal conveyor system. Coal is transferred between the raw coal silos and the preparation plant and from the preparation plant to the clean coal silos and the train loading facility. The Y&O Coal Company train loading facility is within the Conrail Railroad System and is located on the south bank adjacent Captina Creek. It provides the coal transporting capabilities for the Allison Mine.

L. RETURN OF COAL PROCESSING WASTE TO ABANDONED UNDERGROUND WORKINGS

Will the proposed underground coal mining result in the return of coal processing waste to abandoned underground workings? _____ Yes, __X__ No.

M. UNDERGROUND DEVELOPMENT WASTE

Will the proposed underground coal mining operation result in underground development waste or excess spoil from surface areas affected by surface operations and facilities? __X__ Yes, _____ No. If "yes", submit an addendum to the permit application providing the information required by paragraph (M) of Rule 1501:13-4-14 of the Administrative Code.

The underground development waste was previously disposed in the refuse disposal facility as shown on Drawing No. 82-1962-E2 in Appendix A. The refuse disposal facility is reclaimed. When operations resume, a location for underground waste disposal will be determined.

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DAPPOLONIA

PART 4

SPECIAL CATEGORIES OF MINING

A. Are experimental mining practices to be employed in the proposed mining and reclamation operations? _____ Yes, __X__ No.

B. Are mountaintip removal mining practices to be employed in the proposed mining and reclamation operations? _____ Yes, __X__ No.

C. Are steep slope mining and reclamation practices to be employed in the proposed mining and reclamation operations? _____ Yes, __X__ No.

D. If the response to item C. above is "yes", is a variance from approximate original contour proposed? _____ Yes, __X__ No.

E. Are combined strip mining and underground coal mining activities planned? _____ Yes, __X__ No.

F. Are augering mining operations to be conducted on this proposed permit area? _____ Yes, __X__ No.

PART 5

FORMAT AND CONTENT

A. FILING OF ADDENDUMS

If addendums are needed to present the information required by the items in the permit application, the addendum is to be submitted with the permit application and each page, map, plan or other document in the addendum should include the applicant's name and indicate to what item the addendum applies. For example, "Addendum to Part 3, Item K(2) Zebco Coal Company.

B. Provide the information requested below for all technical data submitted in the application. This information is presented with the data in the applicable addenda.

IDENTIFICATION OF DATA	NAME OF PERSON/ ORGANIZATION WHICH COLLECTED/ANALYZED DATA	DATES OF COLLECTION AND ANALYSIS OF DATA	METHODOLOGY USED TO COLLECT AND ANALYZE DATA
Surface water sampling	D'Appolonia	1983	Accepted engineering practices and procedures
Ground water sampling	D'Appolonia	1983	
Refuse embankment subsurface investigation	D'Appolonia	1981	
Engineering analysis	D'Appolonia		
Laboratory analysis (water, soil, coal, roof, floor)	D'Appolonia	1982-83	

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D'APPOLONIA

C. Provide the name, address and position of officials of each private or academic research organization or governmental agency contacted in the preparation of the application for information on land uses, soils, geology, vegetation, fish and wildlife, water quantity and quality, air quality, and archeological, cultural, and historic features.

Name of Official	Address of Official	Position of Official	Name of Agency/ Organization	Type of Information e.g. Geology
James W. Forshey	Belmont County Office Conserva- St. Clairsville, Ohio	District Agriculture tionist Service	U.S. Department of Soil Conservation	Prime Farmland
Charles Wallace	435 Park Ave. Cadiz, OH 43907	President	Ohio Historical Society	Historical and Archaeological Resources
	Grove Arcade Building Asheville, NC		U.S. Department of Commerce Weather Bureau	Climatological

SET TAB STOPS AT ARROWS

Certificate of Insurance

ACORD

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES LISTED BELOW.

NAME AND ADDRESS OF AGENCY

Flat Top Insurance Agency of OH, Inc.
. O. Box 507
.t. Clairsville, OH 43950

COMPANIES AFFORDING COVERAGES

COMPANY LETTER A St. Paul Mercury Insurance Company

COMPANY LETTER B

COMPANY LETTER C

COMPANY LETTER D

COMPANY LETTER E

NAME AND ADDRESS OF INSURED

The Youghiogheny and Ohio Coal Company
P. O. Box 1000
St. Clairsville, OH 43950

This is to certify that policies of insurance listed below have been issued to the insured named above and are in force at this time. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EXPIRATION DATE	Limits of Liability in Thousands (000)	EACH OCCURRENCE	AGGREGATE
A	GENERAL LIABILITY X COMPREHENSIVE FORM X PREMISES—OPERATIONS X EXPLOSION AND COLLAPSE HAZARD X UNDERGROUND HAZARD X PRODUCTS/COMPLETED OPERATIONS HAZARD X CONTRACTUAL INSURANCE X BROAD FORM PROPERTY DAMAGE X INDEPENDENT CONTRACTORS X PERSONAL INJURY CGL	562JJ2135	7/1/84	BODILY INJURY	$ 500,	$ 500,
				PROPERTY DAMAGE	$ 500,	$ 500
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	$
				PERSONAL INJURY		$
	AUTOMOBILE LIABILITY ☐ COMPREHENSIVE FORM ☐ OWNED ☐ HIRED ☐ NON-OWNED			BODILY INJURY (EACH PERSON)	$	
				BODILY INJURY (EACH ACCIDENT)	$	
				PROPERTY DAMAGE	$	
				BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	
	EXCESS LIABILITY ☐ UMBRELLA FORM ☐ OTHER THAN UMBRELLA FORM			BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	$
	WORKERS' COMPENSATION and EMPLOYERS' LIABILITY			STATUTORY		
					$	(EACH ACCIDENT)
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES

Cancellation: Should any of the above described policies be cancelled before the expiration date thereof, the issuing company will endeavor to mail 10 days written notice to the below named certificate holder, but failure to mail such notice shall impose no obligation or liability of any kind upon the company.

NAME AND ADDRESS OF CERTIFICATE HOLDER:

State of Ohio
Ohio Department of Natural Resources
Division of Reclamation
Fountain Square
Columbus, OH 43224

DATE ISSUED 9-7-83

FLAT TOP INSURANCE AGENCY OF OHIO, INC

Richard P. Lowe [signature]

AUTHORIZED REPRESENTATIVE

0277

ACORD 25 (1-79)

AEC 19228

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item A. (11) in Part 1 of the permit application is "yes". A separate attachment is to be submitted for each business entity.

Name of business entity The Youghiogheny & Ohio Coal Company

Statutory Agent _____

Address P.O. Box 1000

City St. Clairsville State Ohio Zip 43950

Person's Name _____ Position _____

Address _____

City _____ State _____ Zip _____

Person's Name _____ Position _____

Address _____

City _____ State _____ Zip _____

Person's Name _____ Position _____

Address _____

City _____ State _____ Zip _____

Person's Name _____ Position _____

Address _____

City _____ State _____ Zip _____

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item A. (11) in Part 1 of the permit application is "yes". A separate attachment is to be submitted for each business entity.

Name of business entity Ohio Power Company

Statutory Agent American Electric Power Company, Inc.

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name Frank N. Bien Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name Peter J. DeMaria Position Director, Treasurer

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name Richard E. Disbrow Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name John E. Dolan Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item A. (11) in Part 1 of the permit application is "yes". A separate attachment is to be submitted for each business entity.

Name of business entity Ohio Power Company

Statutory Agent American Electric Power Company, Inc.

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name A. Joseph Dowd Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name C. A. Heller, Jr. Position Director, President & Chief Operating Officer

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name G. P. Maloney Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name E. N. Scherer, Jr. Position Director

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item A. (11) in Part 1 of the permit application is "yes". A separate attachment is to be submitted for each business entity.

Name of business entity Ohio Power Company

Statutory Agent American Electric Power Company, Inc.

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name John W. Stefoff Position Director, Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name W. S. White, Jr. Position Director, Chairman of the Board and Chief Executive Officer

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name Lawrence R. Hoover Position Vice President

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name John R. Burton Position Secretary

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 3
(IDENTIFICATION OF OTHER BUSINESS ENTITIES)

Applicant's Name The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item A. (11) in Part 1 of the permit application is "yes". A separate attachment is to be submitted for each business entity.

Name of business entity Ohio Power Company

Statutory Agent American Electric Power Company, Inc.

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name A. W. Lindahl Position Assistant Secretary and Assistant Treasurer

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name John F. DiLorenzo, Jr. Position Assistant Secretary

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name William E. Olson Position Assistant Secretary

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

Person's Name William J. Prochaska Position Assistant Secretary

Address 301 Cleveland Avenue, SW

City Canton State Ohio Zip 44702

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 7
(NOTICES OF VIOLATION LISTING)

Applicant's Name The Youghiogheny & Ohio Coal Company Date March 20, 1984

This attachment is to be completed and submitted with the permit application if the response to item 3 (2) in Part 1 of the permit application is "no".

Violation	Date of Issuance	Regulatory Agency	State	Type		Compliance	
				Air	Water	Yes	No
1.	11/29/79	OSM	Ohio		X	X	
2.	3/20/80	OSM	Ohio		X	X	
3.	3/20/80	OSM	Ohio		X	X	
4.	6/04/80	OSM	Ohio		X	X	
	6/04/80	OSM	Ohio		X	X	
6.	6/04/80	OSM	Ohio		X	X	
7.	6/04/80	OSM	Ohio		X	X	
8.	8/12/80	OSM	Ohio		X	X	
9.	9/14/80	OSM	Ohio		X	X	
10.	9/14/80	OSM	Ohio		X	X	

If administrative or judicial proceedings have been initiated concerning any of the above violations, identify the violation and provide the date, location, type of proceeding, and current status of proceeding.

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 7
(NOTICES OF VIOLATION LISTING)

Applicant's Name The Youghiogheny & Ohio Coal Company Date March 20, 1984

This attachment is to be completed and submitted with the permit application if the response to item B (2) in Part 1 of the permit application is "no".

Violation	Date of issuance	Regulatory Agency	State	Type Air	Type Water	Compliance Yes	Compliance No
11.	10/27/80	OSM	Ohio		X	X	
12.	12/05/80	OSM	Ohio		X	X	
13.	1/27/81	ODNR	Ohio		X	X	
14.	3/23/81	ODNR	Ohio		X	X	
15.	6/03/81	ODNR	Ohio		X	X	
16.	6/03/81	ODNR	Ohio		X	X	
17.	8/11/81	ODNR	Ohio		X	X	
18.	9/01/81	OSM	Ohio		X	X	
19.	10/23/81	ODNR	Ohio		X	X	
20.	10/23/81	ODNR	Ohio		X	X	

If administrative or judicial proceedings have been initiated concerning any of the above violations, identify the violation and provide the date, location, type of proceeding, and current status of proceeding.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 7
(NOTICES OF VIOLATION LISTING)

Applicant's Name The Youghiogheny & Ohio Coal Company Date March 30, 1984

This attachment is to be completed and submitted with the permit application if the response to item B (2) in Part 1 of the permit application is "no".

Violation	Date of Issuance	Regulatory Agency	State	Type		Compliance	
				Air	Water	Yes	No
21.	12/17/81	ODNR	Ohio		X	X	
22.	5/13/82	ODNR	Ohio		X	X	
23.	9/28/82	ODNR	Ohio		X	X	
24.	9/29/82	ODNR	Ohio		X	X	
25.	4/14/83	ODNR	Ohio		X	X	
26.	10/18/83	ODNR	Ohio		X	X	

If administrative or judicial proceedings have been initiated concerning any of the above violations, identify the violation and provide the date, location, type of proceeding, and current status of proceeding.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

Sampling Site No.(1) 0277

Lithologic(1) Unit	Thickness	Acid (2) Producing	Toxic (2) Forming	Alkaline(2) Producing	Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
*						
Top Shale	25.0±					
Roof Coal	1.0±					
Draw Shale	1.0±	X				
Pittsburgh No. 8 Coal Full Seam	6.0±					
Bottom Shale	11.0±			X		

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

(1) A typical sample was extracted from the mine prior to temporary mine sealing. The sample location is unknown.

D-0485

SECTION 2 - AREAS ABOVE THE UNDERGROUND WORKINGS

(a) Was subsurface water encountered while drilling these areas? _____Yes, __X__No. If "yes", describe the location of the subsurface water to include stratum and depth below surface of land.

(b) Describe the depth, classification, and the geologic structure of the overburden in these areas. 0277

See geologic description presented in the Permit Narrative in Part 2, Page 1.

(c)	Stratum above Coal	Stratum below Coal
pyritic content	5.4 %	6.2 %
potential alkalinity	<0.1	24.0
clay content	n/a	28.4

SECTION 3 - ANALYSIS OF THE COAL SEAM

Name	Number	Total Sulfur %	Pyrite/Marcasite Sulfur %
Draw Shale	N/A	3.9	2.9
Pittsburgh No. 8 Coal	N/A	5.0	3.5
Bottom Shale	N/A	7.2	11.6

Reference Table 0.1 in Appendix D.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

0277

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

Sampling Site No. DDH-1

Lithologic(1) Unit	Thickness	Acid (2)* Producing	Toxic (2)* Forming	Alkaline(2)* Producing	Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
See attached Boring Log						
Black Slate	4-1/4"	X			X	
Roof Coal	11-1/4"	X				
Draw Slate	9-3/4"	X			X	
Pittsburgh #8	4'7-3/4"	X				
Fire Clay	4-1/4"	X			X	

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

*The Allison Mine has been temporarily sealed. It is not possible to extract samples for testing, therefore, an analysis of the stratum above the coal, the coal seam, and the stratum below the coal seam could not be performed. Based on the results of the one sample tested and the historical evidence of the acidity of the Pittsburgh No. 8 coal seam, the roof, floor, and coal seam in the vicinity of the Allison Mine are considered acid producing.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

Sampling Site No. DDH-3

0277

Lithologic(1) Unit	Thickness	Acid (2)* Producing	Toxic (2)* Forming	Alkaline(2) Producing	*Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
See attached Boring Log						
Soft Dark Shale	2'0"	X			X	
Roof Coal	2'7"	X				
Draw Slate	0"	X			X	
Pittsburgh #8	5'0"	X				
Dark Shale	1'9"	X			X	

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

*The Allison Mine has been temporarily sealed. It is not possible to extract samples for testing, therefore, an analysis of the stratum above the coal, the coal seam, and the stratum below the coal seam could not be performed. Based on the results of the one sample tested and the historical evidence of the acidity of the Pittsburgh No. 8 coal seam, the roof, floor, and coal seam in the vicinity of the Allison Mine are considered acid producing.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

Sampling Site No. DDH-5

0277

Lithologic(1) Unit	Thickness	Acid (2)* Producing	Toxic (2)* Forming	Alkaline(2)* Producing	*Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
See attached boring Log and Lithologic and Hydrogeologic section shown on Drawing 82-1862-E4 in Appendix A.						
Dark Gray Shale	1.8	X			X	
Roof Coal	0.1	X				
Draw Rock	1.1	X			X	
Pittsburgh #8	5.0	X				
Gray Clay Shale	11.5	X			X	

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

*The Allison Mine has been temporarily sealed. It is not possible to extract samples for testing, therefore, an analysis of the stratum above the coal, the coal seam, and the stratum below the coal seam could not be performed. Based on the results of the one sample tested and the historical evidence of the acidity of the Pittsburgh No. 8 coal seam, the roof, floor, and coal seam in the vicinity of the Allison Mine are considered acid producing.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

0277

Sampling Site No. DDH-6

Lithologic(1) Unit	Thickness	Acid (2)* Producing	Toxic (2)* Forming	Alkaline(2)* Producing	Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
↑						
See attached Boring Log						
Gray Clay Shale, Soft	9.6	X			X	
Roof Coal	1.1	X				
Draw Rock	1.2	X			X	
Pittsburgh #8	3.0	X				
Fire Clay	0.3	X			X	

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

*The Allison Mine has been temporarily sealed. It is not possible to extract samples for testing, therefore, an analysis of the stratum above the coal, the coal seam, and the stratum below the coal seam could not be performed. Based on the results of the one sample tested and the historical evidence of the acidity of the Pittsburgh No. 8 coal seam, the roof, floor, and coal seam in the vicinity of the Allison Mine are considered acid producing.

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 13
(GEOLOGY REPORT - Underground Mines)

Applicant The Youghiogheny & Ohio Coal Company - Allison Mine

SECTION 1 - AREAS TO BE AFFECTED BY SURFACE DISTURBANCE

Sampling Site No. DDH-7

0277

Lithologic(1) Unit	Thickness	Acid (2)* Producing	Toxic (2)* Forming	Alkaline(2)* Producing	Compactible(3)	Erodible(3)
Topsoil						
Subsoil						
See attached Boring Log						
Gray Clay Shale	5.9				X	
Roof Coal	1.2					
Draw Rock	1.0				X	
Pittsburgh #8	5.1					
Gray Shale	3.0				X	

(1) Identify the stratum with an asterisk (*) if subsurface water will be exposed at the face up area.

(2) Identify with a (✓) mark whether the stratum is acid producing, toxic forming, or alkaline producing.

(3) Using texture and visual characteristics of the overburden, categorize the stratum as very, moderately, or slightly compactible or erodible.

*The Allison Mine has been temporarily sealed. It is not possible to extract samples for testing, therefore, an analysis of the stratum above the coal, the coal seam, and the stratum below the coal seam could not be performed. Based on the results of the one sample tested and the historical evidence of the acidity of the Pittsburgh No. 8 coal seam, the roof, floor, and coal seam in the vicinity of the Allison Mine are considered acid producing.

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

Applicant Y & O Coal Company Allison Mine

Identification No. of Sampling Station from Hydrology Map	S-1	S-2	S-3	S-4	W-2	W-3
Surface Elevation for Well/Spring	975	1085	1080	980	1235	1245
Depth of Well Below Land Surface	N/A	N/A	N/A	N/A	(4)	(4)
Static Water Level of Well Below Land Surface	N/A	N/A	N/A	N/A	(4)	(4)
Flow for Spring and Streams	<5GPM	<5GPM	<5GPM	<5GPM	N/A	N/A
Date Above Measurements Made	9/13/82	9/13/82	9/13/83	9/13/83	9/13/83	9/13/83
Lithology of Aquifer for Well/Spring	(4)	(4)	(4)	(4)	(4)	(4)
pH (Standard Units)	7.85	6.95	6.95	4.20	7.25	7.50
Total Acidity (mg/l of $CaCO_3$)	<1	<1	<1	328	<1	<1
Total Alkalinity (mg/l of $CaCO_3$)	128	26	30	0	265	226
Total Manganese (mg/l)	0.14	1.91	0.02	11	<0.01	<0.01
Total Iron (mg/l)	0.20	0.20	0.5	7.20	<0.1	<0.1
Dissolved Iron (1) (mg/l)	NR	NR	NR	NR	NR	NR
Total Suspended Solids (1) (mg/l)	NR	NR	NR	NR	NR	NR
Total Hardness (2) (mg/l of $CaCO_3$)	744	504	158	1290	560	446
Date Sampled for Analysis	9/13/82	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83

(1) Not required for ground water sampling
(2) Not required for surface water sampling
(3) Well located at individual residence - owner unavailable for comment
(4) Data unavailable or unknown

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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

Applicant Y & O Coal Company Allison Mine

Identification No. of Sampling Station from Hydrology Map	W4	W-5	W7		SW-1	SW-2
Surface Elevation for Well/Spring	1100	925	929		950	1000
Depth of Well Below Land Surface	(3)	(4)	(4)		N/A	N/A
Static Water Level of Well Below Land Surface	125	(4)	(4)		N/A	N/A
Flow for Spring and Streams	N/A	N/A	N/A		(4)	(4)
Data Above Measurements Made	9/13/83	9/13/83	9/13/83		9/13/83	9/13/83
Lithology of Aquifer for Well/Spring	(3)	(4)	(4)		N/A	N/A
pH (Standard Units)	6.70	11.50	8.30		7.75	8.10
Total Acidity (mg/l of $CaCO_3$)	<1	<1	<1		<1	<1
Total Alkalinity (mg/l of $CaCO_3$)	74	306	560		108	292
Total Manganese (mg/l)	0.08	0.17	0.02		0.31	0.08
Total Iron (mg/l)	1.50	<0.1	0.1		0.5	0.7
Dissolved Iron (1) (mg/l)	NR	NR	NR		<0.1	<0.1
Total Suspended Solids (1) (mg/l)	NR	NR	NR		7	65
Total Hardness (2) (mg/l of $CaCO_3$)	128	340	104		NR	NR
Date Sampled for Analysis	9/13/83	9/13/83	9/13/83		9/13/83	9/13/83

(1) Not required for ground water sampling
(2) Not required for surface water sampling
(3) Well located at individual residence owner unavailable for comment
(4) Data unavailable or unknown

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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 14
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

Applicant Y & O Coal Company, Allison Mine

Identification No. of Sampling Station from Hydrology Map	SW-3	SW-4	SW-5	SW-6	SW-7	SW-8
Surface Elevation for Well/Spring	960	925	925	960	930	925
Depth of Well Below Land Surface	N/A	N/A	N/A	N/A	N/A	N/A
Static Water Level of Well Below Land Surface	N/A	N/A	N/A	N/A	N/A	N/A
Flow for Spring and Streams	(4)	(4)	(4)	(4)	(4)	(4)
Date Above Measurements Made	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83
Lithology of Aquifer for Well/Spring	N/A	N/A	N/A	N/A	N/A	N/A
pH (Standard Units)	7.85	7.55	6.95	7.50	7.65	7.85
Total Acidity (mg/l of $CaCO_3$)	<1	<1	<1	<1	<1	<1
Total Alkalinity (mg/l of $CaCO_3$)	139	118	42	143	192	184
Total Manganese (mg/l)	0.02	0.62	0.28	0.84	0.05	0.22
Total Iron (mg/l)	0.4	0.8	0.9	0.5	0.3	0.5
Dissolved Iron (1) (mg/l)	<0.1	0.1	0.1	0.1	<0.1	<0.1
Total Suspended Solids (2) (mg/l)	59	151	175	88	25	175
Total Hardness (2) (mg/l of $CaCO_3$)	NR	NR	NR	NR	NR	NR
Date Sampled for Analysis	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83	9/13/83

(1) Not required for ground water sampling
(2) Not required for surface water sampling
(3) Well located at individual residence, owner unavailable for comment
(4) Data unavailable or unknown
(5) High suspended solids due to sampling procedure

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OH DEPARTMENT OF NATURAL RESOU S
DIVISION OF RECLAMATION

ATTACHMENT 14
(HYDROLOGIC MEASUREMENTS AND ANALYSES)

Applicant Y & O Coal Company Allison Mine

Identification No. of Sampling Station from Hydrology Map	D-1	D-2	U-2	U-1		
Surface Elevation for Well/Spring	910	840	845	915		
Depth of Well Below Land Surface	N/A	N/A	N/A	N/A		
Static Water Level of Well Below Land Surface	N/A	N/A	N/A	N/A		
Flow for Spring and Streams	(4)	(4)	(4)	(4)		
Date Above Measurements Made	9/13/83	9/13/83	9/13/83	9/13/83		
Lithology of Aquifer for Well/Spring	N/A	N/A	N/A	N/A		
pH (Standard Units)	7.70	7.70	7.78	7.70		
Total Acidity (mg/l of $CaCO_3$)	<1	<1	<1	(4)		
Total Alkalinity (mg/l of $CaCO_3$)	112	112	113	(4)		
Total Manganese (mg/l)	0.48	0.17	0.10	(4)		
Total Iron (mg/l)	0.3	0.6	0.5	0.6		
Dissolved Iron (1) (mg/l)	<0.1	<0.1	<0.1	<0.1		
Total Suspended Solids (1) (mg/l)	80	9.	59	35		
Total Hardness (2) (mg/l of $CaCO_3$)	NR	NR	NR	NR		
Date Sampled for Analysis	9/13/83	9/13/83	9/13/83	9/13/83		

(1) Not required for ground water sampling
(2) Not required for surface water sampling
(3) Well located at individual residence owner unavailable for comment
(4) Data unavailable or unknown

(5) High suspended solids due to sampling procedure

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OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

ATTACHMENT 16
(NEGATIVE DETERMINATION OF PRIME FARMLAND)

Applicant The Youghiogheny & Ohio Coal Company

This attachment is to be completed and submitted with the permit application if the response to item I (1) in Part 2 of the permit application is "no". Check ( ) and complete the appropriate section.

X 1. Lands within the proposed permit area have been used for the production of cultivated crops for less than five years out of ten years preceding the date of the permit application.

Owner: The Youghiogheny & Ohio Coal Company Date: _____

County: Belmont Township: Wayne Washington Section: 3 and 4 25

Lot: *(1) Acres: * James A. Bloom, Vice Pres.
(Signature of Landowner)

Owner: _____ Date: _____

County: _____ Township: _____ Section: _____

Lot: _____ Acres: _____ _____
(Signature of Landowner)

_____ 2. The slope of all land within the permit area is ten percent or greater.

Signed: _____ Date: _____

Title: _____

_____ 3. Other factors exist such as a very rocky surface, or the land is frequently flooded during the growing season more often than once in two years, and the flooding has reduced crop yields.

Signed: _____ Date: _____

Title: _____

_____ 4. On the basis of a soil survey, there are no soil map units within the proposed permit area that have been designated prime farmland by the U.S. Soil Conservation Service (SCS). Attach a copy of the (SCS) finding to this attachment.

(1) Unknown information designated by asterik (*).

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NAME OF MINE OPERATOR Y&O COAL COMPANY

LOCATION OF PERMIT APPLICATION AREA SEC. 3 & 4
WAYNE TWP
BELMONT CO., OHIO

SIZE OF APPLICATION AREA IN ACRES SURFACE ACTIVITY

CHECK THE APPROPRIATE BLOCK:

☐ I have determined that this permit application does not contain prime farmland in accordance with U.S. Soil Conservation Service "Land Inventory and Monitoring Memorandum - 3" (Revised).

☑ I have determined that the permit application contains prime farmland in accordance with U.S. Soil Conservation Service "Land Inventory and Monitoring Memorandum - 3" (Revised.)

A soils map has been attached and prime farmland units are as follows:

Map Symbol	Unit Name
Cg	CHAGRIN SILT LOAM, OCCASIONALLY FLOODED
WmB	WESTMORELAND SILT LOAM

SIGNATURE: James W Forshey
District Conservationist

Date: 9/7/82

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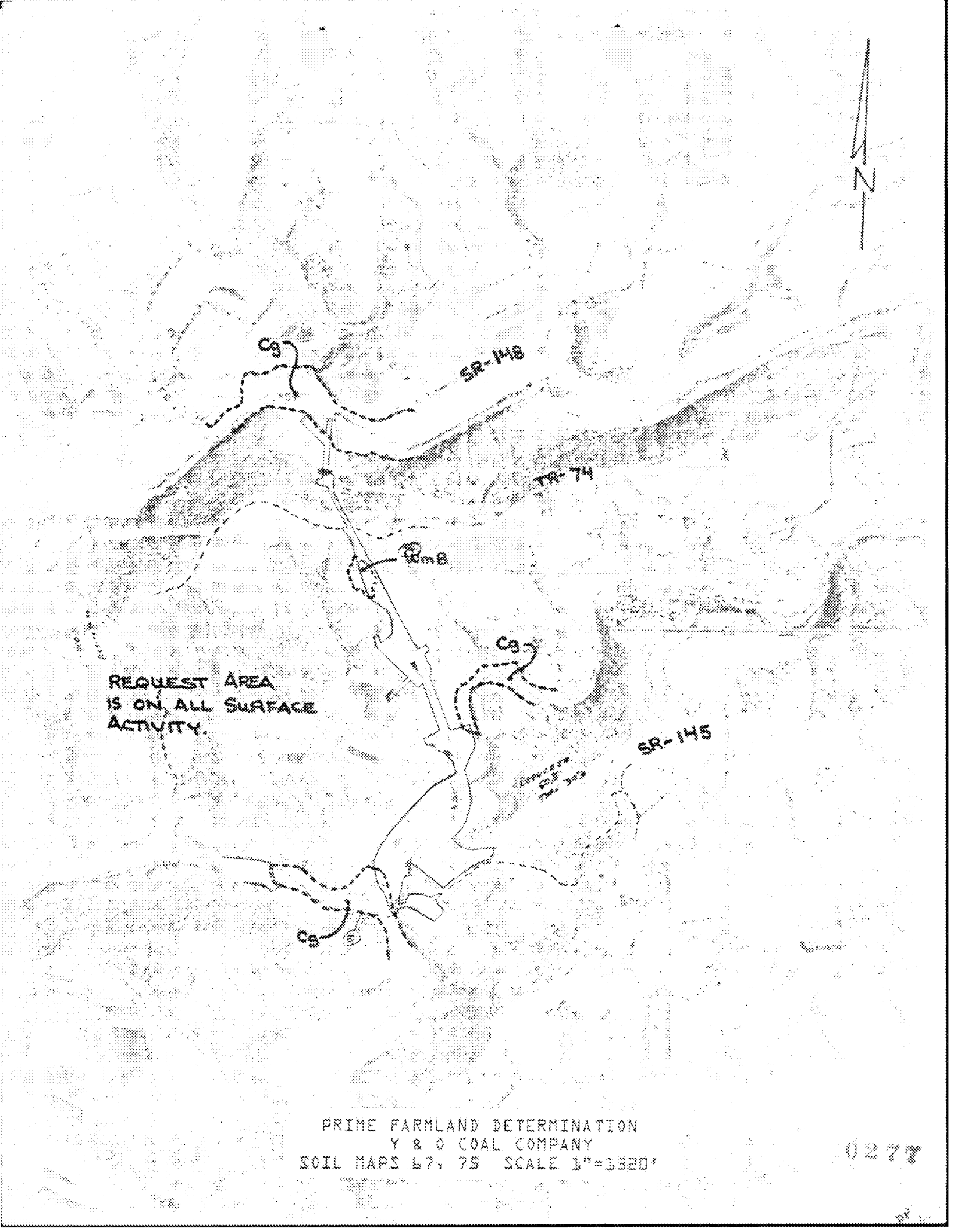

PRIME FARMLAND DETERMINATION
Y & O COAL COMPANY
SOIL MAPS 67, 75 SCALE 1"=1320'

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